THE
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THE PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER.

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PROF. LEE TRIES TO BE CRITICAL.

OUR old friend Dr. DANIEL LEE, now editor of the agricultural department of the *Southern Field and Fireside*, published at Augusta, Ga., takes exception to two of our statements in the leading article in the February number of the *Genesee Farmer*, on "Bones as a Fertilizer."

The Professor prefaces his criticism with some complimentary allusions to our connection with "Messrs. LAWES and GILBERT, who have tried more agricultural experiments to develop the true principles of the science than any other men living," etc., for the purpose of showing, as he says, "that our (his) critical remarks may not seem far-fetched and out of place."

The first of the two statements which the Professor deems erroneous is stated as follows:

"The *Genesee Farmer* says: 'Dry bones contain, in one hundred lbs., about fifty lbs. of phosphate of lime, and gelatine equal to about five lbs. of ammonia.' Both of these statements are too low, and make the value of bones for agricultural purposes less than it really is."

To prove this, Dr. LEE quotes an analysis of the bones of a cow, made by the late Prof. JOHNSTON, showing that they contained 58½ per cent. of phosphate of lime and magnesia, and gelatine equal to 6½ per cent. of ammonia.

We will concede the correctness of this analysis. But our friend the Professor ought to know that bones vary considerably in their composition. Dr. LYON PLAYFAIR says: "The composition of bone varies very much according to the age and character of the animal, generally containing less earthy matter when the animal is young, and increasing in quantity as it grows older." SCHREGER states that the bones of a child contain one-half; those of an adult, four-fifths; and those of an old person, seven-eighths of this earthy matter—principally phosphates. According to BERZELIUS, the bones of a man contain 52 per cent. of phosphate of lime and phosphate of magnesia; those of an ox, 57½. Dr. THOMPSON found 50.6 per cent. in the ileum of a sheep; 45.2 in the ileum of an ox; and 56.1 in the vertebræ of a haddock. VALENTIN found, 41, 49 and 53 per cent. in different bones of the human frame. CHEVREUL found 50 per cent. of phosphates in the skull of a codfish; DUMENIL, 55 in the bones of a pike; and MARCHAUD, only 14 per cent. in the bones of a *squalus peregrinus*. FOURCROY and VAUQUELIN found 39 per cent. of phosphates in ox bones.

We quote these analyses of bones by eminent chemists, simply to show that they are by no means uniform in composition. Prof. JOHNSTON, himself, distinctly says: "The quantity of inorganic matter contained in bones is not constant. It is less in the young than in the full-grown animal,—less in the spongy than in the compact or more solid bones—and less in those of some animals than in those of others." In a table showing the composition of various fertilizers, he puts down bones as containing "40 to 60 per cent. of ash;" say 36 to 54 per cent. of phosphates.

We said that "dry bones contain, in one hundred lbs., *about* fifty lbs. of phosphate of lime." Dr. LEE says this is too low an estimate, *because* Prof. JOHNSTON found 58½ per cent. of phosphate of lime and phosphate of magnesia in the bones of a cow; forgetting that we were speaking of bones in the aggregate, and not of any single specimen. We *know* that our estimate is not too low, taking the average run of bones. Indeed, it will be difficult to find in market a lot of bones that come up to our estimate. Dr. VOELCKER, chemist to the Royal Agricultural Society of England, gives analyses of nine samples of bone-dust, which fully bear out the last assertion. The quantity of phosphate of lime and magnesia in one hundred lbs. of these nine different samples was: 42½, 49½, 48½, 48½, 52, 47½, 44, 34½, 45½.

One of these exceeds our estimate by two per cent.; all the others fall below it. The average of the whole is a fraction less than 46 per cent.

The quantity of ammonia was determined in

seven of these samples with the following result: 5.23, 4.18, 3.89, 4.18, 4.39, 5.08, and 5.03 per cent. Three of the samples slightly exceed our estimate, and four fall below it. The average is 4.57, or nearly one-half of one per cent. *less* than our estimate.

The other statement which Dr. LEE criticises is the following. We give the Professor's own words:

"But the most interesting and, it strikes us, extraordinary statement of the editor of the *Farmer* is the following: 'The value of this change (the conversion of insoluble bone into a soluble mass) may be understood by the consideration of the fact that, while insoluble phosphate sells in London at less than one cent per lb., the soluble phosphate sells readily, as a manure for turnips, at eight cents per lb.'

"If the word eight was not printed, and the number expressed by the figure 8, we should have regarded it as a typographical error; for eight cents a lb. for a superphosphate of lime to apply to a turnip crop, is paying $80 for a thousand lbs., and of course $160 for a ton of two thousand lbs."

That is so, Doctor! Eight cents a lb. is $80 for 1,000 lbs., and $160 for a ton of 2,000 lbs. No doubt about that! But we did not say that what is called "superphosphate of lime" sells in London for eight cents per lb. We said "*soluble phosphate*" sells for eight cents per lb.; and it certainly can not be bought in any market for less than that.

Prof. S. W. JOHNSON, in his valuable Report on Commercial Manures, etc., to the Connecticut State Agricultural Society, says: "Prof. WAY, chemist to the Royal Agricultural Society of England, estimates the worth of soluble phosphoric acid at 10½ cents. per lb. Dr. VOELCKER, of the Royal Agricultural College of England, and Dr. STOCKHARDT, the distinguished Saxon agricultural chemist, reckon it at 12½ cents. They have deduced these prices from that of the best commercial superphosphates. In this report, the price will also be assumed at 12½ cents. This, I believe, is considerably more than it is really worth, but it is probably the lowest rate at which it can now be purchased."

Why this statement of an admitted fact should puzzle the Professor, we were for some time at a loss to comprehend. But by reading another article on "Commercial Manures" from Dr. LEE, in the previous number of his paper, we have discovered the cause of his surprise.

Dr. LEE evidently thinks that what is called superphosphate of lime, and sold under this name in market, is, or ought to be, composed of soluble phosphate—or, in other words of superphosphate. A little examination will show our friend that he is mistaken. The common bone-phosphate of lime is composed of three atoms of lime and one of phosphoric acid. Superphosphate of lime is composed of one atom of lime, two of water and one of phosphoric acid. To convert the common insoluble phosphate into the soluble superphosphate, we have to take away two atoms of lime. This is done by adding sulphuric acid to the bone-phosphate. The sulphuric acid has a stronger affinity for the lime than phosphoric acid, and if sufficient sulphuric acid was added, it would take away *all* the lime, and leave the phosphoric acid free. But the object is to take away two-thirds only of the lime, and we add only sufficient for this purpose.

The sulphuric acid unites with the two atoms of lime, and forms sulphate of lime. This sulphate of lime, or plaster, remains in the mixture. It can not be separated. Dr. LEE appears to overlook this fact, and hence his surprise at our statement that soluble phosphate sells in London for eight cents per lb. Superphosphate of lime is not composed wholly of soluble phosphate. It *necessarily* contains plaster and *a considerable quantity of water.*

Dr. LEE speaks of a "true bi-phosphate of lime, *when free from water.*" Now, our critical friend should know that there is no such article, and can not be. In converting bone-phosphate of lime

Lime (28), lime (28), lime (28), phosphoric acid (72).

into superphosphate of lime,

Lime (28), water (9), water (9), phosphoric acid (72).

the two atoms of lime taken away by the sulphuric acid are replaced by two atoms of water. This water is essential to the change. It acts as a base, instead of lime. And it would be just as reasonable to speak of a true bi-phosphate of lime when free from lime, as of a "true bi-phosphate of lime when free from water."*

Speaking of RHODES superphosphate of lime, the Professor says: "Does not the fact that our best American superphosphate of lime has only fourteen per cent. of this substance (soluble phosphate) in it, go far to prove that our agricultural libraries and reading are strikingly defective. * * So long as the public mind loves ignorance of the agricultural experience of all mankind, save a man's dear self, better than it loves anything else, why should any manufacturer of superphosphates be at the expense of supplying the public with an article that contains twenty-eight or fifty-six per cent. of the thing advertised, when fourteen will satisfy the intelligence of the community?"

* In the manufacture of superphosphate of lime, the calcined bones should always be mixed with about 75 per cent. of water, before the acid is added. We know it is generally recommended to add the water to the acid, but it is much better to thoroughly wet the bones instead. We state this as the result of considerable experience.

Now it is very evident that the Doctor does not know what he is talking about! Let us take two hundred lbs. of animal charcoal (or charred bones), the very best source of phosphates at present known. If it contains 78 per cent of phosphate, it will be a good article. Leaving out of view the three or four per cent. of carbonate of lime which has to be converted into sulphate of lime before the acid will act on the phosphate, let us see what would be the composition of the *very best* superphosphate that can possibly be made from this two hundred lbs. of charred bones.

The 200 lbs. of bones contain 156 lbs. of bone phosphate—composed of 84 lbs. of lime and 72 lbs. of phosphoric acid. To convert this into soluble phosphate, we have to add sulphuric acid enough to take away 56 lbs. of lime. This requires 80 lbs. of sulphuric acid.*

To convert the 156 lbs. of phosphate contained in 200 lbs. of charred bones, then, we add 80 lbs. of sulphuric acid. The mass would then weigh 280 lbs. But the sulphate of lime formed by the union of the sulphuric acid and lime, like our common gypsum or plaster, contains two atoms, or about 21 per cent., of water. United with the 136 lbs. of sulphate of lime found in the mixture, therefore, we have 36 lbs. of water.

Instead of 280 lbs., therefore, the mass would weigh 316 lbs. Again, as we have before said, the two atoms of lime removed from the phosphate of lime are replaced by two atoms of water. In converting the 156 lbs. of phosphate of lime into soluble superphosphate, therefore, 18 lbs. of water are required to replace the lime taken away by the sulphuric acid. This is essential.

In the case assumed, then, we have:

Charred bones	200 lbs.
Sulphuric acid	80 "
Water (united with the gypsum)	36 "
Water (united with superphosphate)	18 "
	334 "

This contains 172 lbs. of sulphate of lime or gypsum and 118 lbs. of superphosphate of lime, composed, as we have shown, of 72 lbs. of phosphoric acid, 28 lbs. of lime, and 18 lbs. of water. In other words, the mixture contains 35.3 per cent. of superphosphate of lime, 51½ per cent. of sulphate of lime, and 13.2 per cent of other compounds of which we have taken no notice in this calculation.

It will be borne in mind that our calculation is based upon the supposition that *all* the phosphate of lime is converted into superphosphate of lime, and that the article is *perfectly* dry—the water being *chemically* united with the superphosphate of lime, etc. And yet we only get 35½ per cent of superphosphate of lime, or 21 per cent. of phosphoric acid. What, then, does Dr. Lee mean by talking of an article that should contain 56 per cent. of superphosphate? In practice, such an article as we have described, containing only 35½ per cent., can not be made. There will always be more or less water and free phosphoric acid, and undecomposed phosphate, or free sulphuric acid in the mixture. Prof. Way has made numerous analyses of English commercial superphosphates. The average quantity of superphosphate found in the *best* four samples was about 21 per cent.—13.23 per cent of soluble phosphoric acid. For Dr. Lee, then, to talk about a superphosphate of lime containing 56 per cent. of soluble phosphates is absurd.

* Equal to about 120 lbs. of common oil of vitriol (Sp. gr., 1,7).

COAL ASHES AS A MANURE.

We are frequently asked, "Are coal ashes of any benefit as a manure." That they are of some benefit, there can be no doubt. Numerous analyses of coal ashes have been made. We have now before us analyses of ashes from seven different kinds of coal. They vary considerably in composition, but on an average contain about 45 per cent. of silica, 40 of alumina and oxide of iron, 12 of sulphate of lime or plaster, 2 of magnesia, and 1 of phosphoric acid.

Commercially, coal ashes have no value as a manure. But still they are worth something, and ought not to be thrown away. We have seen them produce quite a marked effect on grass land—perhaps as much from their action as a mulch as from any other cause. On stiff clay lands, they are beneficial by rendering the soil more friable and permeable to atmospheric influences.

It is said they are good as a top-dressing for lucerne and red clover. They are frequently mixed with night soil for the purpose of absorbing unpleasant odors. They are often employed in the garden, more for the purpose of forming walks and to prevent the ravages of mice, than as a manure. Covering early sown peas with coal ashes is said to forward their growth, as they have a tendency to absorb and retain heat from the sun. An experienced gardener informs us that he uses coal ashes for checking the too rapid fermentation of manure in hot-beds, and regulating the heat. For radishes, on a rather heavy soil, coal ashes are very beneficial.

In the *Gardeners' Magazine*, vol. 11, page 406, an experiment is given where coal ashes were sown on a row of turnips, which produced a heavier crop than another row manured with well-rotted dung.

ROLLERS AND THEIR USES.

Our engraving shows an English roller of the latest and most improved construction. The rollers, two in number, are hollow cylinders of cast iron, moving freely on one common axle. The side portions of the framework, *a*, *b*, *c*, are also of iron; the rest of the framework and the shafts are of wood. The advantage of having a roller constructed in two or more pieces, is that it has the effect of diminishing that tendency to rub over the surface, and tear up the young plants at the turning points of the field, which is the great fault of the roller as commonly made—in one entire piece. The value of this roller lies solely in its power of crushing and compressing the soil.

The further division of these cylinders into many pieces, so that the implement became a series of wheels alongside of one another, each having an independent motion, with washers between, and each wheel having a serrated edge, as shown in fig. 2, and as exemplified in Crosskill's clod-crusher, is the nearest approach to perfection to which the roller has yet attained.

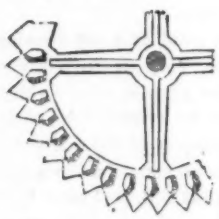
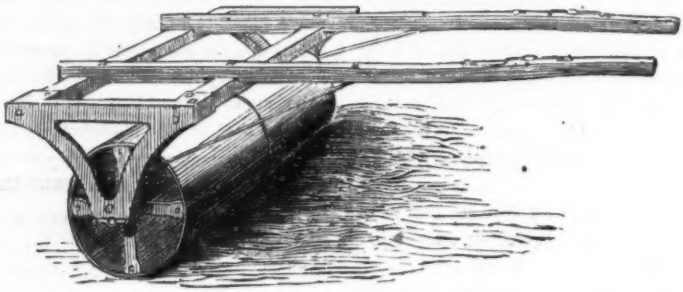


Fig. 2.

Fig. 3.

In this form of the implement is united the crushing effect of mere weight, with the action of a harrow in separating the clods into smaller portions. It is so constructed that the axle is smaller than the slot through which it passes (as shown in fig. 3), so that any one wheel can drop below the level of the others; a great advantage in passing over uneven ground, as thereby no portion of the soil that the implement has passed over can remain untouched.

The above English cast-iron roller will cost about $30—perhaps more. In this country, where wood can be had almost for nothing, and iron is expensive, a good smooth log of white oak, or any tough, hard wood, fitted with iron gudgeons, and attached to a framework somewhat similar to that on the roller shown in our engraving, will be found to answer sufficiently for all ordinary farm purposes, and will cost but the labor of making it, which, if done by a mechanic, would be about $5.



IMPROVED ENGLISH CAST-IRON ROLLER.

It is a point of some importance that the diameter of the roller should be increased in proportion to the weight; not that anything is gained thereby as regards its crushing effect on the soil, but because the larger the diameter, the easier it is for the team to draw, and the less liable the roller is to slide over the ground and smooth the surface by burying the clods instead of crushing them. A roller 6 feet long and 3 feet in diameter is preferable to one of the same weight, 10 feet long and 18 inches in diameter.

Another point is, that, for farm work, the roller should be heavy enough to require two horses to draw it, and they should be worked abreast rather than in the English tandem fashion; as, independently of the loss of power in this case, the trampling of two horses in the same track makes an impression on the soil that is to be by all means avoided. To this end, it is better to construct the framework with a pole instead of the shafts, as shown in our cut.

There are also rollers of other forms of construction, viz: the spiked roller, formed by inserting several rows of spikes in a common hard-wood roller—this is used for pulverizing stiff soils in summer fallowing; the concave or scalloped roller, adapted to the form of ridges, and used for compressing the drills of carrots, turnips and mangel wurzel, and to press the soil to the manure that has been left under the drills. It is sometimes used after the seed has been dropped by hand or a seed sower, and for this purpose it is often attached to a turnip drill.

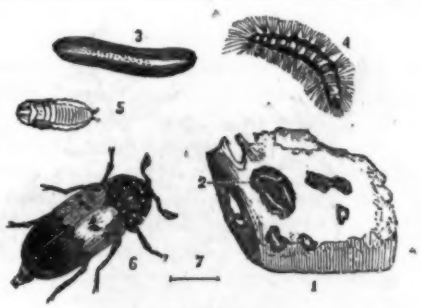
The uses and advantages of the roller are many and important, and no good farmer should be without one. It is almost superfluous for us to point out the various uses to which it may be applied. To crops planted on a newly turned sod, the roller is indispensable, as, by pressing down the sward, it promotes decomposition, and causes the crop to feel, at an early period, the invigorating effect of the manure so produced.

We could adduce numberless instances where the superiority of rolled crops has been manifested over those not so treated; but we will be content with enumerating a few obvious advantages of the implement. In spring, it smooths the meadows and sinks the small stones out of the reach of doing damage to the scythe or mower; presses the roots of winter wheat and clover, that have been partially heaved out by the winter frosts, into the ground again; makes barley and spring wheat tiller out more; and breaks the newly formed crust on the surface, thus admitting air and moisture to the roots. Even corn and potatoes are benefited by being rolled immediately after planting, especially on loose, porous soils. On light lands, it is especially useful in compressing and rendering the soil more compact; and on heavy clays, it should follow seeding, to break the clods, and a harrow may be afterward run over the ground to loosen the surface again, should it appear to have become too compact. Lastly, it may be employed on summer fallows, to crush and kill the weeds, and on country roads, to pack and settle them after the performance of the usual annual repairs.

Under whatever circumstances or for whatever crops the roller is to be used, care must be taken that the soil is in the right condition to be benefited by its use; neither too wet nor too dry—or, as an old farmer we knew used to say, "it shouldn't leave dirt pancakes as it travels along, nor be dressed in a green jacket."

A box attached to the hind part of the frame will be found useful for collecting loose stones in when rolling grass lands, or to add to the weight of the roller on very cloddy soils; although it will at the same time require a greater amount of power to draw it in that case than if the weight had been applied in the roller itself, by reason of the extra amount of friction thus thrown upon the axles.

Oil Cake for Heifers.—It is said that if heifers receive a little oil-cake (say 2 lbs. per day) for two or three months before calving, their milk vessels will acquire a larger development, and their milking qualities be much improved.



BACON BEETLE.

This insect, *Dermestes lardarius*, is one of the greatest pests in the kitchen and pantry of many farm houses. It does not confine itself to feeding on bacon, but also devours hams, cheese, etc. Fig. 1 represents a piece of bacon eaten into holes by this beetle. At 2 are seen its eggs in one of the larger cavities; (3) is an egg greatly magnified. The eggs hatch into little red, hairy larvæ, which, in a month, become full-grown (4); having moulted several times, leaving their skins in the bacon upon which they feed, they transform into pupæ (5). In August, the beetles (6, magnified; 7 natural length) make their appearance, and remain at work through the winter. This beetle is dull black, with a pale, buff-colored band across the elytra, on which is a line of black spots. The thorax is speckled with white, and it has six legs and ample wings, so that it can fly at night from one place to another.

In England, where these pests are a far greater evil than here, it is common to tie bacon up in brown paper bags, so made that there is not the smallest aperture for the beetles to get through to reach the bacon. It is said that where bacon is infested by these beetles and their larvæ, if a dead mouse or small bird is hung up near the bacon at night, these pests will resort to them; and by shaking the dead carcass over a basin of hot water every morning, the whole brood will soon be destroyed. We have known bacon to be packed in dry ashes, as a protection against these beetles, but the bacon absorbed potash and acquired a bad flavor. In England, bacon is kept in dry malt, but this is a remedy not generally applicable in this country. Hams are usually tied up in canvass bags, whitewashed on the outside, as a protection against this and other insects.

Care of Lambs.—The profit to be derived from keeping sheep greatly depends on the care taken of the lambs during the spring months. They should be kept with their dams separate from other stock.

THE EARLY SHORT-HORN CARROT.

We give an engraving of this carrot, which is esteemed the best of all the tribe for table use. It is of a very fine flavor, and commands a ready sale in market. Americans do not sufficiently appreciate the carrot as an esculent; mainly because the kinds commonly grown are too often inferior varieties. The Short-horn carrot grows rapidly and matures early. The young carrots when but small, are highly esteemed for flavoring soups, gravies, etc. This carrot can be profitably grown as a field crop for marketing, near cities and large towns. The most suitable soil for carrots is a light, rich, sandy loam. Manure, if used, should be well rotted; otherwise the roots become fangy.

It is of great advantage to germinate the seed before sowing, by mixing it with fine sand. The mixture is laid in a heap, where it will not freeze, and occasionally watered, for a period of two or three weeks, and then sown in drills on the ground prepared for its reception. By adopting this plan, the seed may be sown later than otherwise, and the young plants then come up quickly and are enabled, in a measure, to get the start of the weeds.

Sowing Plaster.—The addition of a little salt and unleached ashes to plaster for clover, has the effect of giving the clover an early start and attracts and fixes the ammonia from the atmosphere.

SPIRIT OF THE AGRICULTURAL PRESS.

Raising Calves.—John Johnston, in the *Country Gentleman*, thus gives his method of raising calves: When they are a few days old he commences giving them oil-cake meal or barley meal in their milk. This is continued until they are 3½ or 4 months old, when they are turned to pasture. He also feeds them cut hay or cut grass, from the time he first begins to feed them until they go to pasture. He thinks early cut clover hay is better than pasture for calves. The following winter, he gives them good clover hay, with a pint of oil-cake meal each per day. The next summer, they have good pasture. As soon as the pasture fails, they are taken to the yards and fed hay or corn-stalks, with the addition of two quarts of oil-cake meal per day to each calf. In this way his calves realize him from $47 to $60 each, when 20 to 24 months old; whereas, had they been raised on the common shiftless plan adopted by many farmers, they would not have been worth half that sum.

The Benefit of Keeping the Surface Soil Mellow.—The *Country Gentleman* claims that if the surface soil around a young fruit tree is kept mellow, and daily stirred through the growing season to the depth of only one or two inches, the growth of the tree will be more than double, and sometimes quadruple what it would have been had the soil remained undisturbed, or been kept in grass. This stirred soil acts as a slight mulch, and prevents the evaperation of the moisture in the soil during the hot days of summer and the too great radiation of heat at night. On the same principle, it advocates the application of a surface coat of manure on winter wheat in autumn, and the mulching of all dwarf pear trees at the approach of winter.

Every Farmer Should Have his Workshop. So says the *Wisconsin Farmer*. And every farmer should be mechanic enough to mend all the small breakages that occur on the farm, instead of losing time and patience in sending to the village to have the work done. Besides this, when a wet day comes, the boys will interest themselves in learning to become practical mechanics, instead of moping round the house.

Seed Corn.—Preston Earle, in the *Rural Register*, says he has been in the habit, for several years, of soaking his seed corn in a solution of copperas and saltpetre, and thinks it has been the means of preventing the worms from attacking the young plants at their first start in life. Have any of our readers tried this?

THE ALPACAS IN AUSTRALIA.—The *Sydney Morning Herald*, of November 12th, 1859, gives an account of the shearing of the flock of Alpacas recently brought to that place by Mr. LEDGER. The wool was cut off with knives, Peruvian fashion, and the weight of the fleeces exceeded the most sanguine expectations. Two of the fleeces were weighed separately. The fleece from a black Alpaca weighed seventeen lbs., and that of a white one weighed twelve lbs. The flock has doubled in numbers in the fourteen months since they were imported, and they are thriving well. The lambs born in the colony appear remarkably healthy and strong.

APPLYING MANURE TO CORN.—A correspondent of the *New England Farmer*, who uses manure from a barn cellar, without any admixture of straw, thus gives his method of applying it to sward land for corn. He spreads it in spring upon the ground plowed the previous fall, at the rate of fifteen to eighteen cords per acre, and then gives it a thorough harrowing, so as to mix it with the surface soil. Then, just before planting, he plows the ground to a depth of from three to five inches, harrows it and plants the corn. In this way he has raised on an average from sixty to seventy bushels of corn per acre.

AYRSHIRES AS MILKERS.—The *Springfield Republican* says Mr. BIRNIE, of Hampden, Mass., keeps a large herd of Shorthorn and Ayrshire cows, and gives a decided preference to the latter as milkers. In proportion to the food they eat, he says no breed can surpass them in yield of milk. He has one Ayrshire cow weighing about 800 lbs., that has averaged more than her weight per month in milk since April last, and a two-year-old heifer, the daughter of the above cow, that is now in milk, and gives 20 lbs. per day.

ADVANTAGES OF SPAYING COWS.—Dr. DADD, in the *American Stock Journal*, says that the milk of spayed cows gives more cream than ordinary milk, and that the butter made from it is more delicious in taste. The milk is also invaluable for nursing infants. He thinks there is no danger in performing the operation, if skilfully done and the animal put under the influence of sulphuric ether.

COST OF KEEPING SHEEP.—The *New England Farmer* states that Mr. ELLIOTT, of New Hampshire, estimates the cost of keeping sheep at $1.50 per annum each, and that each sheep would make half a load of manure during the winter, besides the benefit done to the pasture by the droppings left thereon.

PROFITS OF KEEPING GOOD SHEEP.—Mr. WHITE, of Kent Co., C. W., writes us: "I have a small flock of Leicesters, 43 in number. Last year I got 249 lbs. of clean-washed wool from these 43 sheep, of which quantity, 7 yearlings gave 63 lbs. From 18 ewes I reared 36 lambs."

Now we will estimate the profit of such a flock. The wool may be estimated to be worth 28 cents per lb., which is about the price it would fetch on the farm in that county:

249 lbs. of wool at 28 cents per lb	$69 72
36 lambs at $2 per head	72 00
	$141 72
Cost of keeping may be estimated at $1.50 per head	64 50
Leaving a net profit of	$77 12

Equal to $1.80 per sheep, for one year only. In a series of years the profits would be greater. The lambs, when full grown, would be worth $5 each, and the sheep would probably sell for as much more than cost as would cover the interest on the first outlay.

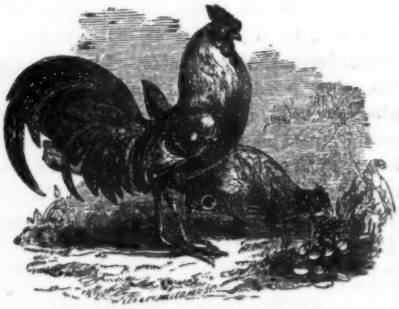
SALT AND PLASTER TOGETHER.

EDS. GEN. FARMER:—In your February number, LEVI BARTLETT advocates the use of plaster for timothy. Now, I would recommend Mr. SHAW to try a mixture of salt and plaster, at the rate of four bushels of salt to two of plaster. This I have tried and found beneficial. For potatoes, my rule is to mix one bushel of salt to four bushels of plaster, and put a tablespoonful on the potatoes in each hill at the time of planting.

As I live near the Onondaga salt springs, I have been experimenting with salt on various crops. I was told that salt would kill my grass and grain; I determined to know how much salt it took to do that, and I commenced with half a bushel to the acre, and every year I have added another half bushel, always mixed with two bushels of plaster. and now I have got to sowing salt at the rate of four bushels per acre, and find this quantity pays the best. Last spring, I sowed eight bushels of salt and four bushels of plaster on two acres of wheat, and the result was a beautiful crop. After deducting one-quarter of an acre killed by the frost and thrown away, the balance produced 42 bushels of good wheat. I have tried salt on almost all soils, and think it is as indispensable to my land as the *Genesee Farmer* is to my house. J. N. H.

Salina, N. Y., February, 1860.

MARKING SHEEP.—In answer to the inquiries of J. S., in the February number, I will give my method of marking sheep, so as to know their age at sight. Use a mark arranged in ten different ways, on the ear—each way answering to one of the nine digits and cypher. Commence with this year, and use the mark denoting the cypher; marking your lambs at the time of docking and castrating. Next year, use the mark answering for the first digit, and so on till the year 1870, when again commence with the cypher. By these marks, you can tell at any time in what year such a sheep was lambed, and by a little "head work," can easily ascertain its age.—J. J. S.



COCK OF THE WALK—GAME FOWL.

To those who regard the Jungle fowl of India as the common ancestor of all our domestic cocks and hens, the Game fowl naturally suggests itself as the first link in the genealogical chain. An English writer on poultry says: "Some of our breedsers, indeed, would derive our black-breasted Red birds from what is commonly called the Bengal Jungle fowl, while the distinction of a separate descent is claimed for the duck-winged, from another variety of wild birds, *Gallus Soneretii*, an inhabitant of Southern India, whose more varied plumage bears a strong resemblance to this beautiful variety." But inquiries of this kind, though very interesting, we will leave to the naturalist. Our present task is with the English Game fowl. In England, he has long held a high post of honor, and in some instances pedigrees and stud-books, running back over a period of more than one hundred years, testify to his unstained descent from birds of note and fame in other places than the poultry-yard. The ardent temperament and high courage has contributed to confer a degree of interest upon this family of birds which has probably been shared by none besides. Although the fowl was found in a domestic state in Britain, at the time of the Roman conquest, it is probable the Game breed was introduced after that event. It is said by MARTIN, "that the Greeks possessed several renowned breeds of Game fowls, and that Media and Persia possessed other of first-rate breeds." It is thought that the Game fowl was introduced by the Romans, who are supposed to have derived it from the Persians, when Britain was a Roman colony.

Of all the domesticated breeds which are believed to retain, in a striking degree, their original character, the Game fowl is entitled to the first rank. MARTIN says: "The Earl of Derby possesses a breed which has been in the possession of that noble family for many generations, and which is seduously preserved from base alloy." All nations, where men have advanced beyond the savage state, appear to have had a taste for Game cocks, and both Christian and Pagan have alike taken pleasure in witnessing their prowess. It is not wonderful, then, that he should have been a favorite equally with the refined and intellectual Greek and the hardy and daring Roman.

Little need be said as to the accommodations necessary for Game fowls. A good grass run is essential, and we can not advise their being kept by any who are unable to grant them this indulgence. They are impatient of restraint, and never appear in really good condition when debarred from the country exercise that seems required by their hardy constitutions. In suitable locations, they are kept at very small cost; for, when indulged with a good grass walk, a little corn morning and evening, is found sufficient to keep them in good order. They are thus well suited to the common farmer's present system of poultry-keeping; for, after ten weeks or three months old, the greater part of their food is procured abroad, and their owner's corn but sparingly required. Yet, kill a game fowl when you will, it is always in good condition; and thus, when fowls are not put up to feed, they afford a ready supply whenever they may be wanted. If any of our readers should desire the *ne plus ultra* of excellence in a fowl, let him eat and pronounce his opinion on the wing of a well-fed Game pullet, and we should have no fear of his disagreeing with this expression of our judgment of the good qualities of these birds for the table. As layers and sitters, Game hens have no superiors. Quiet on their eggs, regular in the hours of coming off and returning to their charge, and confident, from their fearless disposition, of repelling the incursions of any intruder, they rarely fail to bring off good broods. Hatching accomplished, their merits appear in a still more conspicuous light. Ever on their guard, not even the shadow of a bird over head, or the approach of a man or beast, but finds them ready to do battle for their offspring. Instances are on record where rats and other vermin have thus fallen before them. The chickens feather rapidly, and with ordinary care and a liberal and varied diet, such as chopped eggs, with a portion of onions, chives or leeks, bread crumbs, grits, boiled Indian meal, bran, and wheat screenings, with some new milk in the earlier stages of their growth, are reared with as little difficulty as those of other fowls.

It is allowed, by most persons, that a Game cock, in full health and vigor, is, after all, the *beau ideal* of a fowl—the true aristocracy of the genus *gallus*. He is, among poultry, what the Arabian is among horses, the high-bred Short-horn among cattle, and the fleet Greyhound among the canine race.

Springside, N. Y. C. N. BEMENT,

SURFACE MANURING.

EDS. GENESEE FARMER:—I have often thought I would send you my experience in surface manuring. Most of the agricultural writers recommend the manure to be hauled out and plowed in immediately. Until some few years ago, I was engaged in other pursuits, but having become the owner of some land in Kent county, I began tilling the land according to my views on the subject. All the manure I could get was put on the grass land, intended for corn the following season. Stable manure, and the manure from the cow-yards, was all cleaned up as soon after the spring rains were over as possible, whether rotted or not, and applied as above. During the year the same course was pursued. The corn was cut off and the ground seeded in wheat. If I had any manure fit for wheat at seeding time, it was spread on the surface after the land was plowed, and harrowed or drilled in with the wheat. By this way of manuring, I

succeeded in raising fair crops of corn and wheat (the land being very poor). Clover was seeded on the wheat, and lime applied on the clover, to be pastured and surface manured for the next corn crop. This season, I have raised near thirty bushels of wheat from corn ground so manured. My neighbors are beginning to think my way of manuring has something in it, although they enjoyed a good many jokes at my folly in putting out manure for the sun to dry up and the rain to wash away. I have followed the same system now for ten years, and shall continue to do so. I am now cultivating several hundred acres, and seed wheat on fallow, but use my manure on the grass for my corn crop the succeeding year.

Rus Corner, Kent Co., Md. ABEL V. RUS.

ON BREADSTUFFS.

Eds. Genesee Farmer:—There are certain insects which can only live on a single plant; the cabbage butterfly grub, the willow moth grub, and many others, live exclusively on the plants from which they derive their names. Certain nomadic tribes in South America live exclusively on nuts (Brazil nuts?), and until late years the bread-fruit furnished food almost exclusively to certain people in the Pacific Islands. But that civilized people should live so very exclusively on one of the cereals—wheat, that its threatened destruction should cause the panic that prevailed throughout Canada and the Northern States of the Union, shows either that our choice of breadstuffs was sadly limited, or that there was "some fault somewhere."

I admit candidly that this reliance solely on wheat is not confined to this continent, that it is much worse in England, and not very different throughout Europe; but, as two blacks do not make a white, and as we do and can raise Indian corn or maize—a native grain—in abundance, which can not be grown in England, I think I am quite justified in asserting that, on this continent, to exclusively use wheat for our bread, is as absurd as it would be to use beef alone for our flesh meat, salmon alone for our fish, and turkies exclusively for our poultry. They are undoubtedly the best of their kinds, and the most desirable in many respects; but other quadrupeds, fish and birds are eaten and enjoyed. Vegetables we eat of various kinds (perhaps a little too much given to the potato), but it is in bread and kindred preparations only, that we adhere to wheat alone.

I am of course aware of the existence of hominy, samp, johnny-cake, mush and kindred preparations. I am also quite acquainted with the "corn and rye" bread of New Jersey, and of the rye and other bread made by our German settlers; but these are exceptions, and, unless in very limited localities, every one wants wheaten bread.

Now again, I confess wheat to be the best "breadstuff," when properly prepared. It is just about as nourishing as the rest of the cerelia, and is very agreeable, and, above all, "ferments," and makes "bread," properly so called. All this is admitted, and no more need be said in the matter. But the same might be said of beef, salmon and turkies, and still mutton, pork, lamb, chickens, ducks and geese are eaten. Why then should not Indian corn, barley, oats, peas and beans form the daily food of every one?

"To those who have crossed the seas the horizon may have shifted, but the mind remains the same." I may add that governments may be altered and the people remain the same. The idea of *gentility* attached to the use of wheaten bread, now some four or five hundred years old, has more to do with the matter than is commonly thought. In the thirteenth and fourteenth centuries, bread was made from rye, oats, barley, beans and peas, either separate or mixed; sometimes sown and reaped together, called *meslin;* sometimes mixed, sometimes pure, but *always* coarsely ground and roughly prepared. Wheat, on the other hand, was always ground tolerably fine, and made into *manchets* and various other forms of fine bread, and also into pastry. If used by the middling or poorer classes, it was ground coarse, and generally consumed by Christmas; after which rye or barley bread, then bread made of oats and peas, then oats, peas and beans, and, if there was a late harvest, at last beans and straw with mill offal. The fine wheat flour bread was always the delicate food, the luxury, the genteel diet.

Now when, by a greater equality of condition, better agriculture and better grinding, wheat flour became attainable, all classes wanted it and rejected all other food. Improvements in grinding took place in wheat only; those who consumed the coarser grains, used them as their ancestors did—nay, boasted how they preferred the coarse meal of their ancestors; the Scotchman prides himself upon his coarse oat-meal, and the New Englander on his using the coarse meal his forefathers learned to use from the Indian.

Now, it is all this I wish to combat, to show that we can prepare bread—really such—from other grain besides wheat, and that very many articles of luxury may be manufactured totally independent of that grain; so that if ever again visited by the destruction of the wheat crop, we may feel capable of waiting patiently until the scourge is over.

Wheat flour is prepared of various degrees of fineness, and the tendency lately is to use the finest only. The reason of this is chiefly that where the bran, shorts or middlings are left in, either in the usual state or where ground over, the flour has a tendency to get sour. Spring wheat flour is particularly subject to fermentation, and sells at a low price in consequence. The flour containing re-ground offal, or made from spring wheat, is much more nutritive and ferments easier than pure fall wheat extra flour, but *will not keep.*

Now, the only remedy for this is the kiln. Not to dry the wheat, for then it grinds badly; but to dry the flour until the want of moisture makes it keep "in any climate," would enable the North and West to send their flour to the West Indies, would make it sell in the place of the "Southern" brands, such as the "Charleston Mills," and other noted descriptions, and, in short, would make "Western spring wheat flour" as useful as "Pure Genesee," made from "Canada white wheat."

As the kiln is absolutely necessary in preparing "flour" from all other grains besides wheat, and especially from Indian corn, I begin with this. We must have flour kilns. These kilns can be made in different ways. Inclined planes, shifting to different degrees of steepness, on the top of hollow chests filled with steam; hollow tubes filled with steam, having external screws to push the flour from the

stones to the coolers, and many other contrivances' only, if possible, always using steam as the drying medium.

Wheaten flour, as I before remarked, is not only nutritious and palatable, but ferments and makes "bread." The other grains, with the exception of rye and buckwheat, do not. Hence, Indian corn makes "cakes," but, without a certain portion of rye, will not make bread. But I insist that much of the prejudice against corn arises from the mode of preparation. Hominy, samp and meal all answer well for certain uses, but they are quite unfit for bread. The old idea of coarse grain requiring to be ground coarse, still holds good. Even sifted meal does not answer; we want "double extra superfine" corn *flour*. Not corn starch,—all the zein, the really nutritive principle is taken out of that, and given to the hogs. What we want is really fine-ground and finely bolted corn flour; white corn, if possible, and the hardest procurable.

Wanting for my wife some corn meal for mush, I, finding I could get none in Montreal, applied to a Scotch friend who had a brother, a miller. He took some "white Canada corn," grown on the Island of Montreal, and, not understanding what was wanted, made "superfine flour" of it. It was useless for mush or porridge, but it answered for pastry, puddings, and other similar purposes, better than the very best wheaten flour.

Now here is a use for large quantities, better and far cheaper than wheaten flour, much more wholesome; and, as with pastry, puddings, and such purposes, no fermentation is looked for, Indian flour would fill the place now usurped by spoiling the best wheat that Canada can grow. I may add that corn flour of this character has been introduced into England, and has taken well. Surely, in America it ought not to be neglected.

Rye and Indian bread is common in New Jersey, and many parts of the Union. Rye bread is also used in very many parts of Europe. The same fault—coarse grinding and want of sifting—prevails universally. The man who will have his wheaten bread as white as snow, uses black rye bread; and even if the rye flour is fine, the corn mixed with it is only ground to meal. Make them *both* fine,—"double extra superfine" all the better—and you have a loaf nearly equal to a wheaten loaf. But to have the flavor, add one-third wheat bran, or shorts, or middlings re-ground; say, one-third Indian corn, one-third rye, and one-third wheat middlings. Grind fine, bolt equal to extra superfine, and kiln-dry to make it keep, and I will engage that as good a loaf as any one can want will be the result.

Buckwheat ferments and makes, as we all know, good cakes. Were rye unattainable, or dear, it might be substituted, or form one of four, namely: rye, buckwheat, corn, and wheat offal. Oats might take the place of corn in cold climates, or, with barley and peas or beans, could be employed together. Peas and beans being fermentable in some degree, should be employed where more than one-half of either corn or barley is used. In this way, many mixtures might be employed, all finely ground, very finely sifted, and kiln-dried. The offal is of course useful for cattle, sheep, horses or swine, and the occasion for alarm in the event of the partial failure of the wheat crop, perfectly removed.

The mixture of one third each of corn, rye, and wheat offal would be the most approaching ordinary wheaten bread. Corn, rye, buckwheat, oats, and wheat offal, the next best, and any quantity of beans or peas, even if balanced by barley, though nourishing, would be coarse.

I have mentioned what I consider might be the uses of pure double extra corn flour, namely: pastry, puddings, such as suet, plum, and others, now always made from wheat flour, and all sorts of custards and blanc manges, far better than corn starch.

Barley, first hulled and then ground and sifted, makes delicious articles, like sago and tapioca, blanc mange and jellies, and for soup is far before pot or pearl barley.

Superfine oat flour makes excellent puddings, gruel, and various other articles for the family and sick-room.

These last two articles are prepared in England by a Mr. ROBINSON, and sold in Canada at a very great price. Surely, we ought not to have to resort to Britain for oat and barley flour.

In England, rice flour is used for many articles of luxury, but here it seems unknown.

Peas made into fine flour, are far better for soup than whole or split peas, and even, if grown on good soil or with plaster, boil down, which the others will not do. Pea flour makes most excellent puddings to eat with meat, and the Scotch use it to cure dyspepsia.

I know nothing of the flour of white beans, but can easily imagine it to be good for soup and for pudding under pork. This I must leave for trial.

I now drop the subject. I do not pretend to have exhausted it, although I may your patience. I hope some one will take it up and vastly improve upon it, and that a variety of bread may, ere very long, be as common as a variety of meats.

Toronto, C. W., January, 1860. J. T. BRONDGEEST.

VALUE OF MARSH MUCK TO LIGHT LAND FARMERS.

EDS. GEN. FARMER:—Two important problems the American farmer has to solve, are how best to maintain or increase the fertility of his soil; and how best to mitigate the disastrous effects of summer drouths. The valuable report of Prof. JOHNSON, on the nature and value of peat and muck, affords considerable aid in these inquiries, and is calculated to be of very great benefit to those who are in a position to profit by its teachings.

Hereaway at the West, so far from the sea-board that guano and other commercial manures are scarcely available, and with few cities and manufactories in our midst affording extraneous supplies of matters suitable for manure, it is of vast importance to know that we have in our marshes and swamps an inexhaustible supply of enriching and moisture-supplying material, which may be had for the trouble of digging.

In a paper on vegetable physiology applied to farm plants, published in the Transactions of our State Agricultural Society for 1853, when speaking of the food of plants and whence it is derived, I directed attention to the value of the muck of our marshes, as an absorbent of urine and to compost with yard manure; that, unlike the comparatively barren peat used for similar purposes in Great Britain, from the time of Lord MEADOWBANK DOWE

to the present day, this muck, from the luxuriant vegetation it naturally produces when relieved of stagnant water, is evidently rich in the food of plants; and owing to this, and to its power of absorbing and retaining atmospheric ammonia, which the lighter soils of our oak openings probably possess only to a very limited extent, I considered that if it was applied even alone on these soils it must prove beneficial.

A neighbor, who happened to be something of a politician as well as a farmer, had one of these "public documents" sent to him, (with Senator WIDEAWAKE's compliments, of course,) and his son wisely resolved to put this notion respecting the utility of muck to the test of experiment. He accordingly hauled two or three loads, and spread it on a certain spot on a sandy field. The field was subsequently sown to clover, and, the following summer proving dry, effects similar to those witnessed by Mr. JOHNSON on the farm of Mr. POND, were produced. The clover was mostly burned up; here and there might be seen a miserable plant struggling for existence; while on the spot where the muck was spread,—thanks to its moisture-imbibing rather than its ammonia-absorbing nature—the clover was growing luxuriantly. The old gentleman, considering this a useful practical lesson, took several of his neighbors to see the result, and told them truly that their marshes, which some of them were disposed to grumble so much about, were in reality, if proper advantage was taken of them, the most valuable part of their farms.

Another neighbor, who cut a ditch through some bottom land, hauled the muck thrown out on to a sandy field, and the corn produced by that field the year after was allowed to be the best in the neighborhood.

On the main road to our chief trading-place,—Portage City—I noticed that a heavy dressing of marsh muck had been applied to several acres of a sandy field last fall, so that soon, like writing with gypsum on clover, they who run may read.

I am anxious, however, that farmers generally throughout the United States may have an opportunity of reading again and again, by their firesides and at their leisure, this report in its entirety, and thus become thoroughly convinced, by the reasons so clearly set forth by Prof. JOHNSON, of the immense value of these muck deposits. And, with that object in view, I desire to suggest—and this is the main object of my writing—whether it would not be well to publish the report by itself, in a cheap form, and then when published, to let it be known through the medium of the advertising columns of all farm journals, that such a work has been prepared for the farmer's use and instruction, where it may be had, and at what price?

I find no mention in your extracts, whether, in the numerous samples of peat and muck sent to Prof. JOHNSON, any were found on examination to contain salts of iron injurious to vegetation. I have noticed an ochrey deposit in summer where water flows to my marsh from the upland, and unmistakeable signs of the presence of iron in muck I have dug and used; but, from the results produced, it must be in some harmless state of combination.

In your interesting memoir of Mr. BATES, it is said he thrice applied composts of peat and yard manure to his land, and that the first proved beneficial, the last injurious; the successive crops of turnips, barley and clover being comparative failures; but when a heavy dressing of lime was applied to the land, the succeeding oat crop proved a very great one, and the field afterward continued very productive. Lessons in chemistry received at Edinburgh taught Mr. BATES that the peat contained a large proportion of the oxide of iron, which destroyed the stable manure and did the harm, and that lime converted this into a beneficial manure.

Is this correctly stated? There are two oxides of iron usually met with in soils. The first, or protoxide, is considered injurious to plants, and often exists in peat bogs in Great Britain; but chemists tell us that this salt rapidly absorbs oxygen when exposed to air, and thus becomes converted into the second, or peroxide, which is held to be harmless, or even beneficial; for it is said to have the power, in common with clay and decayed vegetable matter, of absorbing ammonia, and retaining it for the use of plants. There are very few more naturally fertile arable soils than those formed by the disintegration and decay of the new red sandstones, and their red color is considered to be owing to the presence of iron. Of soils remarkable for their fertility analyzed by SPRENGEL and quoted by LIEBIG, one which had produced beautiful crops for 160 years, without being manured or allowed to lie fallow, contained 6.5 per cent. of peroxide of iron, and the surface soil of a field in Belgium, distinguished for its fertility, afforded 8.31 per cent. of peroxide and protoxide of iron. Besides these, there is another salt,—the sulphate of iron—the green vitrol of commerce—which exercises a decidedly poisonous influence on plants. This is frequently met with in British peat bogs; and lime effectually neutralizes this salt and deprives it of its injurious action.

It sometimes occurs in soils other than peat. SPRENGEL mentions a case where sainfoin and lucerne could not be grown successfully beyond two or three years, and the subsoil was found to contain upwards of one per cent. of sulphate of iron, which was the cause of these deep-rooted plants perishing. While in Edinburgh, a friend in Lancashire sent me a sample of soil from a part of his garden where nothing could be persuaded to grow satisfactorily, and peas, when sown in it, perished without vegetating. This soil was so largely saturated with sulphate of iron that its presence was sufficiently obvious to the sense of smell immediately the box containing the soil was opened. Now lime is known to have a very beneficial effect, if mixed with peat, or applied to soils containing sulphate of iron. Lime decomposes this salt. The sulphuric acid combines with the lime, forming sulphate of lime, or gypsum, which is useful to many plants, and protoxide of iron remains, which, by exposure to air as above stated, rapidly absorbs another equivalent of oxygen, and is changed into the harmless peroxide. JNO. TOWNLEY.

Moundsville, Wis.

IT is now a welll etsablished fact that the orchard is the most profitable part of the farm, if due care is taken in the selection and planting of the trees, and they are afterward properly pruned and cultivated.

NOTES ON THE FEBRUARY AND MARCH NUMBERS OF THE GENESEE FARMER.

Bones as a Fertilizer is the leading article in the February number, and it contains about all that need be said in preparing them for use. It is but a few years since the attention of our farmers was called to the value and importance of ground, or otherwise prepared, bones as a fertilizer. In many districts of the long grazed and cultivated portions of New England, there is evidently a great deficiency of the phosphates in the soil. The truth of this is well illustrated in the eagerness with which cows and young cattle, in these older sections of the country, seek out and chew old bones for the halt-hour together. They are afflicted with what is termed the "bone disease," arising from a deficiency of the phosphates in the hay and grass upon which they subsist. Such diseased cattle find a remedy in eating bones. Instinct directs them to this, the same as it does with their tongues to lick an old pork or fish barrel for its salt, when they have long been deprived of it. In some places, ground bones or fine bone dust is regularly fed to them with their salt, twice a week. It will be well for farmers, both in the older and in the newer sections of our country, to save all the bones within their reach, and in some form or other apply them to their land. They will all be wanted in the soil sooner or later. "Gather up the fragments, that nothing be lost," is an injunction not yet outlawed.

Large Yield for Two Acres.—Eighty bushels of corn per acre the first year, and four hundred bushels of potatoes per acre the second year, and seventy-two bushels of barley per acre the third year, are certainly very fair crops. But Major Dickinson's system of irrigation explains all mystery, if there is any, about these large crops. He has been doing for his irrigated meadows, what nature has been doing for thousands of years for the annually overflowed soil of Egypt, and for over a hundred years on the two or three times annually-clipped grass meadows bordering on the Deerfield river in Massachusetts, and the sixty years corn-cropped bottom lands of the Scioto in Ohio. The time will come when thousands of other farmers in every State will follow the Major's system of irrigation. His precepts and example in this matter will not be lost.

Wheat from the South.—There has been much discussion in agricultural papers, within the last twelve months, upon the "seed wheat question." Some varieties of wheat ripen (when sown side by side) from ten to twenty days earlier than others. The early maturing of a variety is the result of an inherent quality in that variety, and it will exhibit that quality wherever grown, North or South. The *Early May* and the *Early Japan* are illustrations of this.

Wagon Tires.—We don't use wagons very much for farm purposes "down in this region." Ox-carts are preferred. Formerly, 2½ or 3-inch tire, with deep felloes, were mostly used. But these narrow wheels have gone out of fashion, and the tire is four or five inches wide. With such wheels, there is little or no "cutting in." "The broad tire rolls over the green sward, scarcely leaving a trace of its onward progress." The wheels are about 5 feet across, felloes 2½ inches thick, with the inner corners handsomely bevelled off, and generally well painted. With fair usage, and housed when not in use, these wheels will last a lifetime.

Woodland (by A. B. C.)—The early settlers of this country had two enemies to contend with, viz: the Indians and the forests. To exterminate these was doing, as they supposed, the country much service. The Indians have been gone from the old States a great while, and, for many years previous to the introduction of railroads, the indiscriminate waste of our wood and timber had been stayed. But the introduction of railroads has afforded a market and conveyance of wood, timber and lumber to the manufacturing places, and to the seaboard without a single thought for the future. This "devil take the hindmost" policy is all wrong, and our successors will find it so.

Amusements for Farmers and their Families. Mr. Pierce's views upon this question are "first rate." Hope he has been blessed with a dozen or more children, and that he practices toward them as he preaches. Whether the home of the farmer is pleasant and attractive to his children, or otherwise, depends very much upon the parents. No children ever loved home any the better for being eternally scolded at. Scolding, like smoking and chewing tobacco, is all a matter of habit. I knew of an old lady in an adjoining town, who was so much in the habit of scolding that she could not read a chapter in the Bible, without *scolding it out.*

The March number of the *Genesee Farmer*, with its "Some Hints on Spring Work" for a leader, is so near perfection, that I have no wish either to add to or subtract from it. It is timely, concise, and to the point.

Club-foot in Turnips, Cabbages, etc., played the very deuce with my *Swedes* last season. I can raise sound ones only on newly inverted sod lands. I shall not sow any on old ground again.

Breeding and Rearing Farm Stock, by Mr. Talcott, is a good, common-sense article, that commends itself to the especial consideration of that class of farmers who begrudge their stock a nubbin of corn or a quart of oats, because these can be sold at the store or tavern. The turning of skeleton cattle out to pasture in the spring is neither humane nor profitable.

Best Food for Laying Fowls.—If any one can tell what is the best food for laying fowls, I think Mr. Bement is the man. Some persons with a dozen hens scarcely obtain an egg from them from November till April; others, perhaps next door neighbors, will have a good supply for use and for sale during all the winter months. Is the difference in the breed, or feed? It would be well for some people to inquire into this matter; it might "from many a blunder free them."

Maxims from the journal of a Canadian farmer, are just as applicable to us on this side of the "line," as they are to Her Majesty's subjects on the other side. The writer or compiler of these maxims is a kind of a Dr. Franklin sort of a man, and it is a great pity we have not more of them.

The Potato Convention is pretty well got up; greatly delighting the "little folks," as well as lighting up a smile on the face of the older ones.

Warner, N. H., March, 1860. LEVI BARTLETT.

DEEP PLOWING INJURIOUS ON PRAIRIE SOILS.

Eds. Genesee Farmer:—Farming has been my only business for the last twenty years, and the longer I follow the plow the more I am convinced of my ignorance of the reasons of such slight mistakes which we often make and which prove so disastrous to our prosperity. For instance, a few days too early or too late in sowing wheat will prove to be almost as many hundred dollars damage to the crop. Also, in rotation of crops, how little do we know of this important part of our work.

In regard to the cultivation of corn, I wish to draw your attention to a few facts which have come to my knowledge within a few years. (And this brings up the question which was asked in the November number, 1859: "How Deep should we Plow?" I hope that all of your numerous readers who have tried different ways, and can throw any light upon the subject, and especially those of the West, will contribute something on it. I see the result, to my disappointment, but the why or wherefore I can not tell.)

The facts are these: Some seven years ago, a six acre field was plowed very deep for this country, say twelve inches,—about twice as deep as the common practice. It was sown with wheat the first year, and the second and third years planted in corn, continuing to plow nearly as deep in the spring of each year. The ground was so light and loose that the corn all fell down before the ears grew of any size; therefore the crop was almost a failure both seasons, while other fields near by, cultivated no better, produced double the crop. Another instance—a ten acre field cultivated in wheat four seasons in succession, and plowed twice every year, and no weeds allowed to get ripe; planted in corn the next three seasons, plowed very deep each year,—about twelve inches—and kept clean from weeds. The first two seasons produced very fine crops, equal to any in the vicinity; third year, the corn grew as usual very fine, stood up very straight till the middle of July, and then fell down before the ears matured, so that many of them were not more than three or four inches long; and did not produce half as much as that on the other side of the fence, which has never been plowed more than six inches deep, allowed to grow up to weeds some years, and, as we say sometimes, "half cultivated."

I never saw land in better condition to grow garden seeds than was this ten acre field last spring, and it remained so during the summer. As far as the eye could detect, nothing could hinder it from producing a fine crop. The stalks fell down in every direction. It was not the wind that caused them to fall; it was no chintz bug, which sometimes does damage to crops, and no other insect that could be seen. The roots did not take hold of the ground sufficiently to hold the stalks up. In the fall, a man could pull up a stalk with his thumb and finger, and sometimes a whole hill at a time.

My attention has been directed to this subject more this season than ever before, and I find that farmers who have never used three horses abreast in plowing for corn, and have not plowed more than six inches deep, have invariably had good standing corn, while those who have plowed deep for years have suffered from falling crops. And now, as this subject of deep plowing is in everybody's mouth and in all agricultural papers, and although I am a firm believer in it myself, if managed in a more economical and scientific (I don't like that word exactly, and will say more sensible) manner, I want for the sake of argument to take the negative side of the subject, and will some time say more about it. SAML. B. TURNER.

Quincy, Ill., February, 1860.

FEEDING BEES IN SPRING.

Eds. Genesee Farmer:—Feeding bees in spring is sometimes absolutely necessary, but to make arrangements, expecting to do so, when selecting stocks in the fall, is of doubtful economy. Such hives as are too poorly supplied with honey, should be either fed in the fall or taken up. But as some stocks are either robbed, or from some other cause consume more honey than we expect, a little trouble in feeding now may save a loss. In doing so, considerable care is requisite, and but few know how to manage it properly. Honey fed to bees, is almost certain to excite quarrels among them. Strong colonies will often carry off the honey given to the weak ones as fast as it is supplied.

It is possible that feeding a stock of bees in spring may cause them to starve; whereas, if let alone, they might escape. Although this looks paradoxical, I think it may be made to appear reasonable. Whenever the supply of old honey is short, probably not more than one egg in twenty which the queen deposits, will be matured—their means not allowing the young brood *all* to be fed. This appears from the fact that several eggs, under some circumstances, may be found in one cell, where it is impossible for more than *one* to mature. Now suppose you give such a stock several pounds of honey, at a time when the flowers yield none, or but very little, and they are encouraged to feed a large brood, and then your supply fails before they are half-grown, what are the bees to do? Destroy the brood, and lose all they have fed to them, or draw on their last year's store for a quantity to help them in this emergency, and trust to chance for themselves? The latter alternative will probably be adopted, and then, without a timely intervention of favorable weather to bring out the secretions of honey in the flowers, the bees must starve. The same effect is sometimes produced by the changes of the weather: a week or two of fine weather may bring out the flowers in abundance—a sudden change, perhaps a frost, may destroy all for a few days. This makes considerable vigilance necessary, as these turns of cold weather, when they occur, make it unsafe to neglect them till white clover appears, which, in some seasons, is as late as the middle of June. But, if the spring is favorable, there is but little danger, unless they are robbed.

If the necessary care about worms is taken, it will tell which hives are light—merely raising one edge to destroy the moth-worms, tells you something about the honey on hand. To be very exact, the hive should be weighed when ready for the bees, and the weight marked on it. By weighing at any time afterwards, tells at once, within a trifle, what honey there is on hand. Some allowance must be made for the age of the combs, the quantity of bread, etc. It is hardly worth while

to begin to feed without being prepared to continue the supply, as needed, until the flowers yield abundance.

If it is wished to wait as long as possible, and not lose the bees, when it is known they are nearly destitute, a test will be necessary to decide how long it will do to delay feeding. But, in this case, strict attention will be absolutely necessary; they will need examination *every morning*. If a light tap on the hive is answered by a brisk, lively buzzing, they are not suffering; but if no answer is returned to your inquiry, it indicates a want of strength. Extreme destitution destroys all disposition to repel an attack. If the weather is cool, very likely they will appear lifeless; yet they can be revived, and now *must be fed*. When this is their condition, invert the hive. If any bees are scattered, gather them into the hive; get some honey, add water, to prevent burning, and scald it; or, if no honey, take sugar, add water, and boil it; when cool enough, pour a quantity among the combs, directly on the bees; cover the bottom of the hive with a cloth to secure the bees, and bring to the fire to warm up. In two or three hours they will be revived, and may be returned to the stand, providing the feed given is all taken up; on no account let any run out around the bottom.

The necessity of a daily visit to the hives is apparent, from the fact that, if left over for only one day, in the situation just described, it will be too late to revive most of them. At night, if you have a box cover that will exclude all bees outside, you may open the holes in the top of the hive, fill a small baking-dish with honey or syrup, and set it on the top; put in some shavings to keep the bees from drowning, or a float be used, if you choose, made of some light, very thin wood, and full of small holes or narrow channels made with a saw. At the commencement of feeding, a few drops should be scattered on the top of the hive and trailed to the side of the dish, to teach them the way; after feeding a few times, they will know the road. When the weather is warm enough for them to take it during the night, it is best to feed at evening—from four to six ounces daily is sufficient. If the family is very small, what honey is left in the morning may attract other bees; it is then best to take it out and return at night. A good look-out should be kept that they are not plundered by other bees—which is quite common when feeding—and again left in a starving condition until flowers produce sufficient honey.

When you have the means to keep up a supply of food, and the time requisite to make feeding secure, perhaps it would not be advisable to wait till the last extremity before feeding, as a small family will sometimes entirely desert the hive when destitute. In these cases, they issue precisely as a swarm: after flying a long time, they usually either return or unite with some other stock. If they return, or cluster (which they sometimes do), they need attention *immediately*, by feeding as directed.

Whenever a desertion takes place, something is wrong—in spring it may be destitution or mouldy combs; at other times, the presence of worms, diseased brood, etc. By whatever cause it is produced, it is well to ascertain it and apply the remedy. M. QUINBY.

St. Johnsville, N. Y., 1860.

FEEDING BEANS TO MILCH COWS.

Eds. Genesee Farmer:—Hay, owing to the June frost, was a total failure in this section last year, and the cry was that the cattle must starve. Now, as the farmers in this section had never been in the habit of using anything for feed but hay, straw and corn-stalks, with the corn all carefully removed,—never feeding an ear to anything but the horse and hog—they felt certain of poverty if not death to their stock. What I propose to tell, is what was my condition, and what has been my success.

I cut twenty acres of meadow, and got twelve tons of poor hay. This, with the exception of three acres of corn, was all I had to keep twenty cows and two horses upon. It was out of the question to buy hay or sell cattle. I was fortunate in the course of the fall to find a little straw that I could get, and bought five tons, thinking cows would eat it just before starving. Next I bought corn enough, in addition to what I raised, to make 250 bushels. I always feed everything in the stalls, and when feeding time came, I commenced with the stalks; feeding, at the same time, corn in the ear, twice each day to the cows that were not giving milk. To those that were, I fed stalks, with corn and bean meal. I will now leave my subject to inform you how I came to use beans for feed.

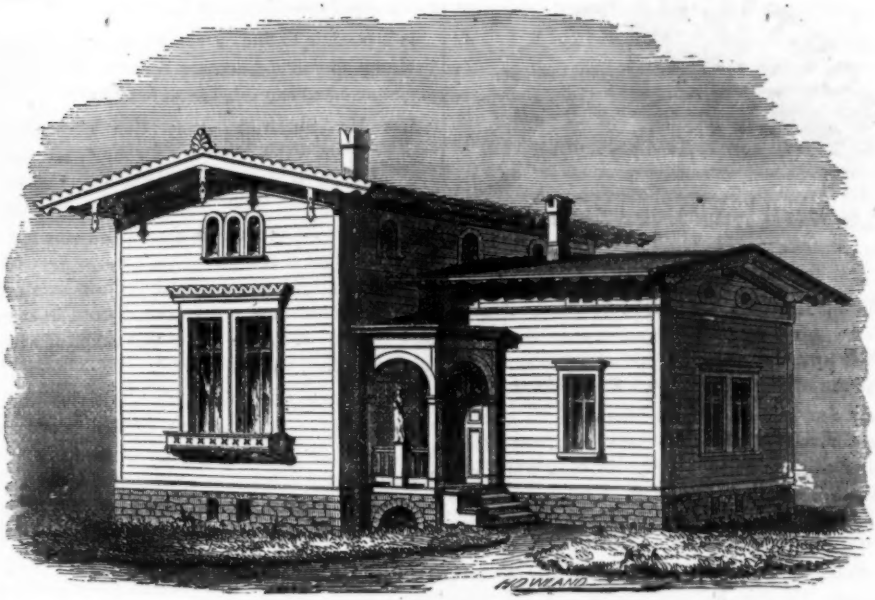
The frost cut my beans when there was yet a large number of green pods. When threshed, these green beans turned so as to spoil them for market. My neighbors told me they were lost, as there was nothing that would eat beans. My first experiment was to boil them and mix with meal. This they seemed to like. Next I mixed them with corn and got them ground. They were said to be the first beans ground at this mill. I feed two quarts to each milch cow twice per day, with such skimmed milk as is not needed for the pigs. My cows with this feed, give large quantities of milk.

When the stalks were gone, I commenced on the straw, supposing they would think it an imposition; but they looked good-natured and ate it with a relish. After the straw came the hay, continuing with regularity the corn and meal. My cows look well, are strong and healthy, and were wintered cheaper than I ever experienced before. V. R. C.

Oberlin, Ohio.

Walking Horses.—A correspondent of the *Country Gentleman* suggests the offering of premiums at annual county fairs for fast walking as well as fast trotting horses. He says he knew a man who kept from two to four teams at work on the road, and never allowed them to trot at all; yet he made the distance in quicker time than his neighbors who made their horses trot at every convenient place. He said that when a horse walked after trotting, he walked much slower than his common gait, if kept continually on the walk, and thus lost more than he gained by the trotting.

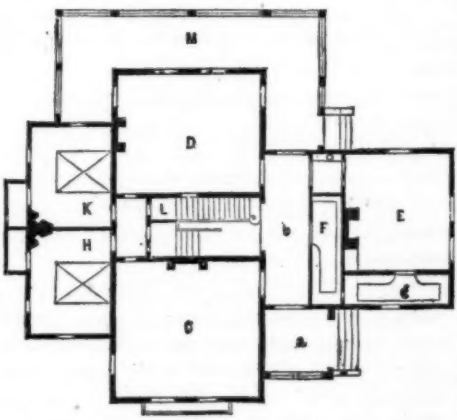
Taste of Turnips in Milk.—I noticed an article in the *Farmer* stating that if turnips were fed to cows after milking, morning and night, the milk will not taste. We have tried it all this winter, but still the milk and butter tasted of the turnips. We left off feeding turnips a little more than a week, and fed with carrots, and the milk and butter were sweet and nice.—R. J. S., *Hillsburg, C. W.*



THE NEW AMERICAN STYLE FOR COTTAGES AND VILLAS.

THE NEW AMERICAN STYLE FOR COTTAGES AND VILLAS.

We submit this plain and small example of the new style, as representing what amount of comfort and beauty can be combined, where the cost was $2,500 on Long Island, and likely $100 or $200 less where materials are cheaper.

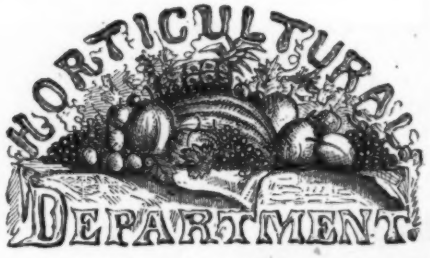


The general characteristics of the style here represented are types of the life of the American people, and peculiar to their required comforts. Why should we not have a style of our own, with such a vast amount of materials as we possess? If others have not attempted to produce a national style, *we* shall endeavor to spare no pains toward its accomplishment. We commence with the smallest designs, for the homes of the humble can be as beautiful as those of the wealthy, in proportion to their cost.

Let us look around us and see how very few examples there are designed with true architectural principle, and conveying to the beholder a feeling of admiration. Do not let us be behind in architecture. Let us feel able to compete with our neighbors on the other side of the ocean. Let say that our humble homes are masterpieces of art in architecture, as well as those of greater pretensions. Let us have art and the beautiful combined with our required comforts, and then we shall be able to take our station on the highest step, above all others, as a nation devoted to liberty, united with art. These ideas may look out of place by the side of this small example of our attempts; but how often have the greatest effects arisen from the smallest causes, and we hope we do not advance too far with our remarks when, to the readers of this journal and others, we can say we have examples costing one hundred times as much as this.

Description of the Plan.—Front faces the north, dining-room south, kitchen east. *a*, entrance-porch; *b*, hall; C, parlor, 16 by 14; D, dining-room, 16 by 13; E, kitchen, 12 by 13; F, store-room; *g*, pantry; H and K, bed-rooms, 10 by 11; closets and fire-place to each. The wing is only one story high. On the second floor of the main building are two bed-rooms and bath-room. The space over the kitchen is used for storage, etc. In conclusion, we will state that we shall shortly present a design in brick construction, with the general characteristics of the style—one peculiarly adapted to the wants of the people.

New York, March, 186[illegible]. SAELTZER & VALK.



TOPIARY WORK.

Under this head, we find, in the March number of the *Horticulturist*, an elaborately illustrated article by J. Jay Smith, who has recently retired from the editorial chair of the *Horticulturist*.

Mr. Smith seems to have discovered an occupation for those "who have been great," and have retired to private life, the prosecution of which will cause this usually dull part of earthly existence to "slip somewhat insensibly away." "The training of vines, shrubs, and even trees," he says, "is one of those artifices which will continue to give pleasure by carrying out a preconceived idea, and realizing it by degrees." Now, this sounds very well, and without further amplification, we should infer the author of such a sentiment to be an enthusiastic horticulturist, skilled in the mysteries of pruning, training, shortening, tying out, and all the other artful practices of modern gardening. But let us read further:

"It has been the fashion to rail at artificial scenes: Pope set the fashion, and the witlings followed their leader; but it is by no means ascertained that the human mind, the average intellect, is not capable of deriving pleasure from the surprises which art may introduce. I have myself derived more satisfaction in youth from a huge box-bush hollowed out by time and art, where concealment and quiet could be enjoyed behind a leafy screen, than from mountain scenery, or any scenery but a waterfall. You may assemble all the new evergreens as well as the old in a given space; they may all be growing beautifully according to nature's laws, and delighting your educated taste. Show these to a regular inbred citizen, or to a child, and as respects their education to the subject, their minds differ but little, each being a blank sheet in which no correct lines have been drawn, and they will make little impression. The expression may be 'Ah!' or 'Yes.' Suddenly introduce the same parties to a nook in which are some healthy bushes growing in the shape of an animal, a cross, a crown, or any correctly outlined object, and the exclamation is at once altered: 'Oh dear! how very curious! See that dog! how natural!' Your visitor forgets the sublime Cedar of Lebanon, and carries in his memory only the odd, combined, however, with the element which is never to be lost sight of, that human ingenuity, and time, and expense of some kind, have been lavished for your enjoyment."

Is it possible to find in the whole circle of horticultural literature, another example of so many erroneous ideas expressed in so few lines!

Has Mr. Smith no conception of artificial scenery, from which the "human mind, the average intellect, is capable of deriving pleasure," except from such stiff, unnatural and grotesque objects as living trees and bushes cut into the forms of "an animal, a cross, a crown," etc.?

"See that dog! how natural!" How unnatural —how absurd—how positively ludicrous is every such figure! would be the exclamation of every intelligent man, woman or child.

We venture the opinion that a novice would express quite as much surprise (if that is an emotion which for itself it is desirable to foster,) on his first introduction into a well-formed and well-kept garden, where he should see closely shaven, smooth lawns, neat, hard gravel walks, beautiful, finely-formed trees and shrubs, flower-beds planted with an artist's discrimination in the arrangement, combination and contrast of colors, as he would at the sight of a box fighting-cock or an evergreen monkey. If the "average intellect" of the readers of the *Horticulturist* is to be entertained by this kind of garden ornaments, we congratulate it in having so enthusiastic a champion.

We have no doubt the youthful Smith "derived satisfaction" from "concealment and quiet behind a leafy screen," but are also inclined to believe he has spent a greater proportion of his time in the shade than he here intimates.

The engravings which illuminate this article are of various forms, but what they are intended to represent we are unable in all cases to determine, as the writer does not inform us fully on this point; of course it is supposed that he possesses this information himself, and perhaps will make it known on application.

Fig. 2 is a cross on the top of a pillar, with a narrow base sloping outward to a broad, rounded top. Figures 3 and 4 are in the form of quarter sections of a hollow globe, for shaded seats, and are the only useful or graceful objects represented. Figure 7 is a clumsy-looking urn, and figure 9 is a bird, with a top-knot and a long, sweeping tail, standing on one leg on the top of a round-headed club. Figure 10 represents an arbor at Elvaston Castle, England, cut out of a Yew tree, and the whole surmounted by two Peacocks, one on the top of the other.

These are the models which are furnished to the American public through a medium which professes to be the exponent of the horticultural taste of the country.

Mr. S. says: "I would confine the art to moderate dimensions;" also, "I would not expose my ambition by carving the ludicrous or monstrous." We suppose by this is meant that he would confine himself to dogs, birds and other small animals and objects. "A fountain represented in a Norway Fir may be eminently beautiful, when a centaur would be simply ridiculous." The nice discrimination which here appears to be made, we are fearful will scarcely be apprehended by the "average intellect."

As an example of special pleading we have the following: "There has been too much said against the artificial in landscape gardening; what is it, after all, but artificially imitating nature, the great teacher as well as mother?" Ghost of Downing! is the writer sane?

In our ignorance, we had supposed that the true principles of ornamental gardening had been defined, and that horticulture henceforth was to progress instead of being subject to fashion or caprice. REPTON and DOWNING, with consummate skill, deduced and exemplified the elements of this beautiful, useful and ennobling art. Hundreds of grounds in this country have been formed according to these principles, and we expect, as wealth and taste becomes diffused, to see produced, throughout our lovely land of varied scenery, the brightest spots of earth the sun has ever kissed.

BONES FOR GRAPE VINES.

EDS. GENESEE FARMER:—It is quite customary to bury whole bones in grape borders, and the effect, I believe, is generally beneficial. I have seen the fibrous roots cling to the bones, and penetrate into the pores as though there was something in the bones they were very fond of. Now, I suppose that it is the phosphate of lime of the bones that constitutes their chief value. Would it not seem probable, therefore, that superphosphate of lime (which contains *soluble* phosphate of lime) would be a very powerful manure for grape vines? I should be glad of your opinion on this subject.

Philadelphia, Pa. R. H.

The effect which our esteemed correspondent describes, we have witnessed ourselves. The chief value of *burnt* bones is undoubtedly owing to the phosphate of lime which they contain; but in fresh bones the gelatine is of at least equal value to the phosphates. Gelatine is very similar in composition to the flesh of animals; and it is well known that dead animals buried under grape vines produce, oftentimes, a very beneficial effect. One of the most productive vineyards in this State had a large number of the carcases of animals (killed in the vicinity by an accident on the railroad) buried beneath the vines before they were planted. Now, this animal matter, decaying in the soil, would furnish *ammonia* to the plants rather than phosphate of lime. And it is more than probable that the effect of whole bones placed beneath grape vines is to be ascribed to the ammonia formed by the decay of the gelatine of the bones rather than to their phosphates.

The bones of a bear and of a stag, which had been long buried in the soil, were analyzed by MARCHAUD, and they were found to have lost very little phosphate of lime, while the animal matter, or gelatine, had greatly diminished, especially in one of the bones, which had been buried more shallow than the rest.

It follows from this, that the phosphate of these whole bones, which remain undecomposed and insoluble in the soil, can have very little effect on the plants. The fact, therefore, that whole bones buried beneath grape vines increase their growth and productiveness, is no proof that the soluble phosphate of lime in superphosphate would prove beneficial. We do not say that it will not, in fact we think it is quite likely that superphosphate may be an excellent manure for grapes; but the facts mentioned by our correspondent do not prove it.

"But doesn't the fact," we hear our correspondent ask, "that the effect of bones lasts for a great many years, prove that it is due to the phosphate of lime, and not to the gelatine? The latter decomposes more readily than the former, and would soon be consumed, while the phosphate would last for a long period. If the bones are beneficial after all the gelatine is decomposed and absorbed by the plants, it must be owing to the phosphate of lime still left in the bones." This would be true, if the gelatine was all consumed, but in the case of whole bones it would take many years to produce such a result. While the bones analyzed by MARCHAUD, which had laid in the ground for an unknown period, had lost a large proportion of their gelatine, they still contained a considerable quantity—that of the bear, which was buried deep, 16 per cent.; that buried shallow, 4 per cent., and that of the stag 7 per cent. It is stated that the soil of a district in Sweden, "which, from time immemorial, had grown excellent wheat, without manure," was analyzed by BERZELIUS, and found to contain minute fragments of bone, capable

upon boiling with water, of yielding a weak solution of gelatine. It was concluded, therefore, that the spot had been an ancient battle-field, and that its prolonged fertility was due to the bones of the old soldiers and their war-horses buried in it, and still, to some extent, undecomposed.

HIBISCUS ROSA SINENSIS.

This plant is very commonly cultivated in the gardens of China and the East Indies, and is there a fine evergreen shrub, attaining a height of ten feet. With us, however, it can only be grown in the green-house, or, more properly, a hot-house, and seldom becomes more than two or three feet in height.

The leaves are from three to four inches in length and two-thirds as broad, supported by a long foot stalk; they have a dark green, shining, wax-like surface, which renders the plant very attractive, even when not in bloom.

The flowers are about two inches in diameter, of the shape of a single hollyhock, and of a dark, rich, velvety crimson color. The plant in full flower is perfectly gorgeous in appearance, and will always receive especial attention wherever it becomes known.

It is a matter of importance that the ground on which fruit trees are to be planted should be subsoiled and well manured before planting. Afterward it will not need to be so deeply cultivated.

WORK IN THE KITCHEN GARDEN.

April is a busy time with those who have gardens. Much has to be done as soon as the frost is out, in preparing the ground for planting. It is however not desirable to sow seeds for a main crop, but only such as can be advantageously grown as an early summer crop.

Peas.—A few rows of early peas may be sown, such as the *Dwarf Kent* and *Prince Albert*. Plant in rows three feet apart and soak the seeds for a few hours, and roll them in plaster before sowing.

Onion seed may be sown in rows one foot apart. One ounce of seed will sow a bed 24 feet long by 4 wide.

Parsnips are a desirable crop to get into the ground early. The ground for them should be dry, deep and well pulverized. Sow in rows 18 inches apart. In May thin out to 8 inches apart in the rows. With good after cultivation no crop will yield a better return for the labor bestowed. The best variety is the *Hollow crowned*.

Beets.—These are worthy a place in every garden. The *Blood Beet*, either long or turnip rooted, is the only kind we should grow. Some like the white sugar beet. Soak the seed a day or two before planting, and sow in rows 18 inches apart.

Carrots.—Some sow the *Early Short Horn* this month. It is the best variety for garden culture, and succeeds well on any moderately rich soil.

Parsley.—This forms a neat edging for the ends of the different beds next the larger walks of the garden. It is useful in flavoring stews, soups and gravies. Some like it for salads.

Turnips.—A bed of the *Early white globe* or *Early Dutch* will be found useful for summer use. Sow broadcast and afterwards thin out as desired.

Cabbage.—Sow some seed of early kinds, as the *Early York*, *Sugarloaf* and *Winningstadt*, as well as some of the early varieties of Cauliflowers. Sow broadcast in a richly manured spot in the open border, where the sun can have free access to the plants.

Radishes.—The best kinds are the *Long Salmon* and the *Red and white Turnip*. Sow broadcast in a warm border and give enough seed. Rake it over lightly, and in three or four days the plants will appear. Pull the largest as they grow to a size fit for the table. Sow a fresh bed every two or three weeks to keep up a succession.

Lettuce.—The earliest sown are the best—in

fact those self sown the previous summer are often to be found plentifully in most gardens. To attain perfection they should afterwards be transplanted into an open border, and when of tolerable size, tied up, so as to become white and solid at the heart.

Cresses, mustard and various other salads may be sown as soon as the ground is ready for them.

Tomatoes.—No garden should be without these. The earliest plants are the best, and as it is an object to get the fruit ripened as early as possible, it is well to sow some seeds early and protect the young plants from frost till they can be transplanted. The best kinds are the *Large smooth red* and the *Yellow Plum*. The *Feejee* and *Perfected* are two new kinds that have recently appeared, which we have not tried, but have heard them highly recommended.

Potatoes.—A few early potatoes, such as the *Ash-leaved Kidney*, or *Early June*, may be planted, and if frost is anticipated after they come up, protect the plants with boards or straw. Plant whole in hills, one potato in each.

Don't forget to prune up all the small fruits, and tie up such as seem to need it. Clean out and fork over the strawberry and asparagus beds, and get the whole garden into neat and trim order.

INSECT EGGS ON THE LEAVES OF APPLE TREES.

Eds. Genesee Farmer:—In March last, I was going through my orchard—a young one—to prune out superfluous branches, when I noticed here and there dead leaves adhering to the trees. On taking hold of one to remove it, I found it strongly adhering by a silky substance, in which was a number of eggs about the size of a turnip seed. Thinking it better to get rid of them, I examined all the trees and took off over forty-five of these nests. In some of them, larger eggs had been deposited in the centre of the smaller ones, probably by a parasite. Were these nests the deposits of moths? Can you or any of your correspondents tell? and is it advisable annually to examine fruit trees for the purpose of destroying these nests? J. M.

Canada West, Jan. 24, 1860.

High Bush Cranberry.—This shrub deserves all the encomiums in the Genesee Farmer of March, 1860, p. 96, except one. Its *fruit*, when fully ripe and soft, contains an acid pulp, in which it resembles the common low cranberry, though inferior. The fruit is sometimes sold as a substitute for the real cranberry. No housewife, however, will try to use it but once, in the place of that delicious sauce. The fruit is almost wholly a hard long seed, scarcely covered with pulp, and, when cooked with much sugar, and resembling the true cranberry, it sadly mocks the taste. The only use of it is as an ornamental shrub. It belongs to a very different order of plants from the cranberry, the real *oxycoccus*.—C. D.

LIME FOR FRUIT TREES.

Eds. Genesee Farmer:—In the February number of the *Farmer*, I noticed an inquiry made by Levi Lebo, of Pa., with regard to the use of lime in orchards. Although I am a young farmer, I think I have had some experience in the culture of fruit trees. But whether Mr. Lebo means to ask for information with regard to using lime in the form of whitewash, to be applied to the trunks with a brush, or with regard to using it as a top-dressing around the roots of the tree, I am at a loss to know.

The practice of whitewashing trees with lime and water, which is practiced more or less almost everywhere, I consider to be very injurious to the growth of the tree. It is true, it will sometimes render the bark comparatively smooth and clean, and destroy, in a measure, the bark-louse. But, although there may be a slight benefit derived from whitewashing trees in this respect, I believe there is a much greater amount of damage done by it. The lime on the bark of the tree stops all the pores and prevents the free circulation of the sap. The tree is stunted from the injury done to the bark; and, if persevered in, the lime on the bark will eat it, and make it become thinner and thinner, until eventually the tree will die. A wash made of weak lye, or of a solution of two pounds of potash to eight quarts of water, and rubbed on the stems of the tree, will prove more beneficial and far less injurious.

And now with regard to using lime as a top-dressing. When it is used in moderate quantities, I consider it very beneficial. This, I think, is very evident from the fact that limestone soils are almost invariably productive of all kinds of fruit. I think I never saw an orchard that was planted on a limestone soil but was very productive, unless there was something very unfavorable to the growth of the trees. Lime will, in the main, promote in an astonishing degree the flowering and fruiting of almost all plants, because calcareous salts promote evaporation and the concentration of the sap. Air-slaked lime is an excellent manure for fruit trees, as a top-dressing; or if spaded in around the tree, it will render it much more fruitful, where the soil is not too calcareous by nature. But, in all cases in the use of lime, care should be taken not to use it in too great quantities.

Another benefit derived from the use of lime around fruit trees, is the fact of its seriously affecting more or less all kinds of worms and insects that infest the apple tree. Most of the vermin that annoy fruit trees in the summer, remain in the ground during the winter. A quantity of lime spaded in around the roots of the tree will have a good effect toward destroying the canker-worm, if applied in season, and a small mound of lime around the collar of the tree will prevent the ravages of the borer, which almost always enters the tree in the tender bark near the ground.

The result of my observation and experience, therefore, is that lime is good and beneficial on all soils except calcareous ones, that it will greatly assist in destroying all vermin that harbor in the ground under the tree, and that it is equally injurious when applied to the bark, as it stops the pores and impairs the health of the whole tree.

Argyle, N. Y., March 2, 1860. J. F. HANDLER.

THE BROWN TURKEY FIG TREE.

THE FIG.

THE history of the Fig is coeval with that of the human race; frequent mention is made of it in the Scripture and other writings that have been handed down to us from antiquity. It has always been highly esteemed as an article of food, and in those countries well suited to its culture, it forms an important item of produce and exportation. As an article of diet, it is used both green and in the dried form. The fresh fig, just plucked from the tree, is sweet and cloying to the taste and not particularly agreeable, until a relish is acquired for it, when it becomes a favorite and wholesome fruit.

In warm climates, the fig tree attains a height of about twenty feet, with numerous branches, and bears two successive and distinct crops of fruit during the season; the first ripening in June and July, and the last crop during the autumnal months.

The flower of the fig is remarkably curious, being numerously produced *within* a fleshy, hollow receptacle, and consists merely of a single style and three stamens.

When the office of the flowers has been performed the receptacle which contains them increases in size and becomes, in time, the perfect fruit.

In the Middle and Western States, the culture of the fig is seldom attempted, except in greenhouses and graperies; but there is no difficulty in producing the fruit in the open air, by merely taking up the plants with a ball of earth attached in the autumn, before the frost nips them, and putting them away

FRUIT AND LEAVES OF THE BROWN TURKEY FIG.

in a cellar that will not freeze, and then re-planting each spring. They will bear this apparently rough treatment remarkably well; the only effect it has being to diminish the growth of the wood and increase the fruitfulness—two results, in this case, quite desirable.

In growing the fig in this manner, little pruning is necessary, as the shoots are very short jointed and become well ripened.

The best variety of fig for this mode of culture is the *Brown Turkey*, as it is one of the most hardy, being able even to bear the winter in the southern part of the Middle States, if protection is given it. Downing describes the fruit as "large, oblong, or pyriform. Skin, dark brown, covered with a thick blue bloom. Flesh, red and of very delicious flavor." *Black Ischia*, *Brown Ischia*, *Small Brown Ischia*, *White Ischia*, *Nerii*, and *Pergussaba* can also be recommended as excellent and tolerably hardy sorts.

EXPERIMENTAL GARDENING—NEW AND VALUABLE PLANTS TO CULTIVATE.

Eds. Genesee Farmer:—We devote a portion of our time to obtaining and propagating various new and rare plants; and by testing the quality of each variety, and when found to be of value, we deem it our duty to impart our discoveries to others, that they too may share with us the luxuries and comforts of life. "Progress and Improvement" is our object, and to disseminate, by way of interchange or otherwise, rare seeds of known value. As a very convenient and cheap mode of receiving and distributing seeds from distant parts of the Union is offered by our cheap postage and frequent mails, it becomes the duty of every agriculturist to cast in his mite to forward the enterprise. A little parcel of corn, or other grain, planted at any point, may soon multiply so as to become widely disseminated. Especially is this the case with seeds of garden vegetables. By the above mode we have received and cultivated many valuable plants; and among the many varieties we have grown the past season, and deem worthy of public mention, are the following:

The Tomato.—Dr. Bennett, a professor of some celebrity, considers the tomato an invaluable article of diet, and a most sovereign remedy for dyspepsia and indigestion; and that it should be constantly used for daily food either cooked, raw, or in the form of catsup. It is the most healthy article now in use. We opine the doctor is about right, and that the tomato should be grown in every garden. We find the *Feejee*, a variety recently introduced from one of the Fejee Islands, one of the best. It is early, fruit more solid, less seeds, smooth skin, pale red color, and large—specimens weighing from ten to twelve ounces; of extra flavor. *Charlton's Improved* is, in our opinion, the next best; color, deep red; of good size and quality.

Of Sweet Corn, the *Constantinople* and *Brigg's Excelsior* are two of the best varieties we have grown. They are early, large, 10 and 12-rowed, well filled, sweet and delicious.

Of Peas, we will mention two varieties, out of the many we cultivate, as the best. The *West India Sugar Pea* (edible pods), and the *Poor Man's Pea*. We will tell why this is called the *Poor Man's Pea*. It is this: they are so rich and nutritious that they require no butter or other ingredients to season them. In height, about two feet; pods hang in clusters, and can pick a mess in a few minutes.

Lettuce.—The *Grand Admiral;* heads large very tender.

California Curled Parsley.—A biennial of easy culture. Of our common parsley, from the long time the seed lies in the ground without germinating, it has been said that "it goes nine times to the devil and back before it comes up." These journeys require ordinarily a month or more. We find no such delays of the germinating of the *Cal. Mammoth Curled Parsley*. This is extra for garnishing; giving a delicious flavor to fresh meats, soups, etc., and should be grown in every garden.

Mammoth Mustard.—This is truly a gigantic plant. It has a large, curled leaf; extra for greens or salad; a profuse seeder—much more so than the common, and of better quality.

Strawberry Watermelon.—This is our choice variety.

Cucumbers.—The *Man of Kent* is quite a novelty. We have grown specimens 18 inches in lingth. The *Early Green Russian* and the *Early White Russian* are two very early and desirable varieties. *Brigg's Prolific Pickle* is the smallest of all cucumbers, and good for pickling.

Fennyreck.—An annual medicinal plant, the seed of which is valuable for the restoration of the hair. Take half a tablespoonful of the seed, put it in half a gallon of cold water and let it stand 40 hours; then wash the head twice a week, and it gives the desired effect. It is also one of the best ingredients for a condition powder for horses and cattle. Fennyreck is a hardy plant, of easy culture, and should be grown more extensively. Plant in drills ten inches apart and eight inches asunder.

West India Ghirkin.—About the size of the butternut; stem five to six inches in length. Pick the fruit when young and tender, and reserve the stem, as it is handy to take them from the dish. As a pickle, we prefer them to the cucumber.

Winter Squashes.—The *Hubbard* is one of our choicest and best varieties.

Long Purple Egg Plant.—This variety is preferred for family use. When two or three inches in diameter, cut in thin slices and fried in butter, or used in stews or soups, they are quite a rarity. The *White Egg Plant* is very ornamental.

Chufa (*Earth Almond*).—This produces tubers about the size of an ordinary bean, resembling in taste a chestnut, but more delicious.

Weld, or Dyer's Weed (*Reseda luteola*).—This produces a splendid fast-yellow color, for all kinds of silk, cotton, linen, mohair and woolen goods. The same yellow color serves for painting also, as the "Dutch pink" is made from it. *Weld* is a very hardy biennial plant. Sow in July or August, and harvest in July the next year, when in bloom and beginning to turn a light yellow color, by merely pulling up the whole plant, and put up in small shocks, so as to thoroughly dry. It can be kept a number of years without altering its coloring qualities.

We have grown many other varieties of plants, but we already weary the patience of the reader, and occupy too much space in the *Farmer*. L. N.

Windsor, Ashtabula Co., Ohio.

(To be continued.)

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

ELECTION CAKE.—Four lbs. of flour, two lbs. of butter and two of sugar. Stir the butter and sugar together thoroughly; then mix half of it with the flour, together with a tumblerful of good home-made yeast, and one quart of warm milk. Beat it and pat it with both hands, until the ingredients are thoroughly mixed. Then let it stand in a warm place until it is light, say five or six hours. Then add the remainder of the butter and sugar, two lbs. of raisins, and a small quantity of pulverized mace. This may stand over night, and put in pans for baking early in the morning. It should rise in the pans, and then bake an hour in a slow oven. This cake requires no eggs, and is used by economical housekeepers in winter, when eggs are dear. The loaves, nicely frosted, will be preserved moist for a long time.

TRANSPARENT AND WATER-PROOF CLOTH.—To every quart of raw linseed oil, add half a pint of copal varnish and two ounces of sugar of lead. Mix well together and apply with a brush. This mixture applied to thin sheeting, answers a good purpose in place of glass, for hot-beds, letting in plenty of light, excluding cold and wet equally as well, and protecting the young plants from the hot breath of the old shiner, which proves oftentimes fatal to them.

DELICIOUS VEAL CUTLET.—First take your cutlet and beat it with the flat side of the cleaver or rolling pin. Beat it for about five minutes, then, having thrown a quantity of butter, eggs and flour into a frying pan, when the mixture is hissing hot, put your cutlet in and there let it stew. The mixture will penetrate to the core, and is imbibed in every part.

FRENCH ROLLS.—Rub two ounces of butter into one lb. of flour. Mix in the whites of three eggs beaten into a froth, and a spoonful of yeast. Milk to make a stiff dough, and salt. They can be made over night, and divided into rolls for breakfast. Bake ten minutes.

FOR BURNS.—Two ounces of sage, two of mutton tallow, two of rosin, and two of beeswax. Boil the sage and strain it. Then put all together over a moderate fire, and stir till all is dissolved. Bring to a boil, and pour in old rum till it stops boiling. It is first rate.

COOKIES.—Two eggs, one cup of sugar, one of butter, and one-half teaspoonful of saleratus, dissolved in one tablespoonful of milk. Beat the eggs and sugar very thoroughly before adding the butter, cold. Add flour sufficient to roll.

PUMPKIN PIE.—One cup of grated pumpkin, one egg, enough milk for one pie, cinnamon, a little salt, and two tablespoonsful of sugar.

WEST POINT CAKE.—One lb. of sugar, one lb. of flour, one-halt lb. of butter, five eggs, one cup of cream and one teaspoonful of soda.

LUCY'S DELICATE CAKE.—The whites of four eggs, one cup of sugar, one-half cup of butter, two spoonsful of milk, one-half teaspoonful of cream tartar, one-fourth of teaspoonful of soda. Flavor with lemon.

JELLY CAKE.—Four cups of flour, three of sugar, one of butter, one of sour cream, five eggs, one teaspoonful of saleratus. Bake thin and spread a layer of jelly between. This is excellent.

JACKSON'S JUMBLES.—Three cups of sugar, one and one-half cup of butter, one of sweet milk, five of flour, two eggs. one small teaspoonful of saleratus, and a little fruit sprinkled over the top.

SODA SPONGE CAKE.—The whites of six eggs, one cup of white sugar, one of flour, one teaspoonful of cream tartar, one of soda, one of essence of lemon, and a little salt.

A VERY NICE GINGERBREAD.—Two cups of molasses, one of sugar, one of sour milk, one of butter, five of flour, one teaspoonful of saleratus, and one tablespoonful of ginger.

LEMON CAKE.—One lb. of sugar, three-quarters of a lb. of butter, seven eggs, one lb. of flour, the juice of one lemon and the rinds of two. Bake in a moderate oven.

CYNTHIA'S GINGER COOKIES.—One pint of molasses, one cup of sugar, one of butter, one-half cup of water, one tablespoonful of ginger, and one of saleratus.

CREAM CAKE.—One cup of butter, two and a half of sugar, four of flour, five eggs, one cup of cream, and a little saleratus. Season with lemon or cinnamon.

LEATHER GINGERBREAD.—One cup of molasses, seven tablespoonsful of water, five of lard, one teaspoonful of saleratus, a little salt, and cinnamon or ginger.

MOTHER'S CAKE.—Two cups of sugar, one of sour cream, one-half cup of butter, four eggs, two cups of raisins, saleratus and spice.

MAXIM.—A good cook never sticks a fork into meat while cooking, as it leaves a place for the juices to escape through.

A GOOD HOUSEWIFE is one of the first blessings in the economy of life. Men put a great value upon the housewife qualifications of their partners, *after* marriage, however little they may weigh with them *before;* and there is nothing which tends more to mar the felicities of married life, than a recklessness or want of knowledge, in the new housekeeper, of the duties which belong to her station. We admire beauty, and order, and system, in every thing, and we admire good fare. If these are found in their dwelling, and are seasoned with good nature and good sense, men will seek for their chief enjoyments at home,—they will love their home and their partners, and strive to reciprocate the kind offices of duty and affection. Mothers that study the welfare of their daughters, will not fail to instruct them in the qualifications of married life; and daughters that appreciate the value of these qualifications, will not fail to acquire them.

New Advertisements this Month.

Bloomington Nursery—F. K. Phœnix, Bloomington, Ill.
Drain Tile Machines—A. La Tourette, Waterloo, N. Y.
Baker Apple Grafts—F. A. Rockwell, Ridgefield, Conn.
Price Catalogues—Wm. R. Prince & Co., Flushing, L. I.
Highland Nurseries—A. Saul, Newburgh, N. Y.
Webster's Unabridged Dictionary—G. & C. Merriam, Springfield, Mass.
No. 1 Peruvian Guano—A. Longett, New York.
Field and Flower Seeds—Wm. Thorburn, Albany, N. Y.
Genuine Hubbard Squash Seed—Wm. Thorburn, Albany, N. Y.
White Top Onion Sets—Wm. Thorburn, Albany, N. Y.
Nansemond Sweet Potato—Emory Luce, Ashtabula, Ohio.
Flower Seeds—Wm. Thorburn, Albany, N. Y.
Flower Seeds by Mail—G. R. Garretson, Flushing, L. I.
Thorough-bred North Devons at Auction—C. N. Wainright, Rhinebeck, N. Y.
Extra Daniel O'Rourke Peas—Wm. Thorburn, Albany, N. Y.
Pine Hill Nursery—Godfrey Zimmerman, Buffalo, N. Y.
To Horsemen—Samuel G. Welling, New Rochelle, N. Y.
Female Agents Wanted—Marie Louise Hankins & Co., New York.
Herring's Patent Fire and Burglar-Proof Safes—James G. Dudley, Buffalo, N. Y.
Cast Steel Bells—James G. Dudley, Buffalo, N. Y.
Howe's Improved Hay or Cattle Scale—James G. Dudley, Buffalo, N. Y.
Myatt's Victoria Rhubarb—D. C. Andrews, Woodbury, N. J.
Hardy Plum Trees—Oneida Community, Oneida, N. Y.
French Hybrid Gladiolus—J. M. Thorburn & Co., New York.
Tree and Shrub Seeds—J. M. Thorburn & Co., New York.
Nansemond Sweet Potato Plants—C. B. Murray, Foster's Crossings, Ohio.
Rochester Central Nurseries—C. W. Seelye, Rochester, N. Y.
New York State Agricultural Works—Wheeler, Melick & Co., Albany, N. Y.
Seedling Potatoes—Jonathan Talcott, Rome, N. Y.
Chufas, or Earth Almonds—Wm. Thorburn, Albany, N. Y.
Peavine Clover—Wm. Thorburn, Albany, N. Y.
Chinese Sugar Cane—I. W. Briggs, West Macedon, N. Y.
Choice Tobacco Seeds—Allen & McElwain, Springfield, Mass.
Wilson's Albany Seedling Strawberry—W. H. Hayes, Bridgewater, N. Y.
Flower Seeds by Mail—J. M. Thorburn & Co., New York.
The Rural Empire Club—I. W. Briggs, West Macedon, N. Y.
Spring Garden Seeds—J. M. Thorburn & Co., New York.
Kedzie's Rain and River Water Filter—James Terry & Co., Rochester, N. Y.
Seed Potatoes—Alfred Vail, Waterloo, N. Y.
Flower Seeds by Mail—Allen & McElwain, Springfield, Mass.
Honolulu Nectarine Squash—I. W. Briggs, W. Macedon, N. Y.
Valuable Seeds—Hubirt & Co, Little Wichita, Texas.
Hubbard Squash—James J. H. Gregory, Marblehead, Mass.
Cranberry Vines—Noble Hill, Caton, N. Y.
Trant's Evergreen Pea—Wm. Thorburn, Albany, N. Y.
Genuine Hubbard Squash Seed—Allen & McElwain, Springfield, Mass.
Marblehead Drumhead Cabbage—James J. H. Gregory, Marblehead, Mass.
Japan Apple Pie Melon—Allen & McElwain, Springfield, Mass.
Fancy Poultry, Rabbits, etc.—E. S. Ralph, Buffalo, N. Y.
New Book on Grape Culture—Wm. Bright, Philadelphia, Pa.
Wilson's Albany Seedling Strawberry—C. L. Twing, Lansingburgh, N. Y.
Wilson's Albany Strawberry Vines—Joseph Caldwell, Troy, N. Y.

NOTES ON THE WEATHER FROM FEBRUARY 15TH TO MARCH 16TH, 1860.—The first four days of the last half of February were cold, on the 17th as low as 2° above at eve and only 9° for the average. The 22nd, 27th and 29th were quite warm, and spring-like, rare weather for the season. Indeed the average for the last half was 30.1°, or 3° above the mean of 23 years. The hottest day was the 22nd.

Of the whole month the average was 26.5°, not 1° above the mean for 23 years, and 1° below that of January, for February is often the coldest month. The average of Feb., 1859, was 30°; Feb., 1858, 21°; of 1857 33°; of 1856, 18°.

The water in Feb. was 1.354 inch.

The week's sleighing, which ended on the 22nd, was followed with pleasant wheeling.

Feb. 13th made ice at London, Eng., and skating on the ice in the Parks; cold, 26°, and ice unsafe.

On the 22nd was an extensive snow storm from Maine along the Atlantic to Georgia and west perhaps to the Mississippi. The Genesee rose, and continued higher to the end of the month, which closed with rain and was warm.

March came in warm, with rain; and though frost, and winds rough and raw, with snow squalls occurred, the weather was warm to the 13th, when the thermometer was 6° in the morning. On the 12th snow fell wide over the country, some 8 or 9 inches deep from early morning to eve, more snow than in any day in the winter. The next evening (13th) was a splendid Aurora borealis, crimson colored, at 7 p. m. and for half an hour, and then white for an hour or more.

The average of this half month was 35.2°, and for 23 years was 29.9°, which is 1° less than for this fortnight in 1859. Previous to this, this period was colder; as for 1858, 22.9°; 1857, 22.1°; and 1856, was 19.3°, a difference of 16° for 1860 and 1856. The highest temperature was 61° on the 7th, and the warmest day 50.3°.

The spring birds began to appear early in the month; pigeons flew over; robins came on the 10th, blackbirds soon after, with others; grass begins to start.

The indications are, that the spring will be early. But this is to be seen. The grass has started in many places; but there will probably be cold enough to check too rapid growth of buds. There are great fields of snow in Canada, over which the northern winds will come thoroughly cooled. Lake navigation has commenced. On the 6th the first steamboat reached Albany from New York. The Genesee has risen considerably, and been rather high for a short time.

A COMPLETE SET OF THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY, consisting of five volumes (1856-7, 8-9 and '60,) will be sent by mail, postage paid, to any address for *one dollar*. This is a rare chance to secure a complete set of this useful work which may never occur again. They will be sent the day the money is received. Address JOSEPH HARRIS, Rochester, N. Y.

MARKET REPORTS.—The majority of farmers are not much interested in the state of the markets at this season, and we have concluded to omit our usual report this month.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1860 will be sent prepaid by mail to any address, on the receipt of 25 cents in postage stamps.

THE NEW HAVEN AGRICULTURAL LECTURES.—The success of the course of Agricultural and Horticultural lectures at New Haven surpassed the most sanguine expectations of the friends of the movement, although we believe the receipts were not quite equal to the expenses. This course of practical and scientific lectures will form a bright epoch in our agricultural history. A similar course will be given next winter under more favorable circumstances. The new building of the Philosophical Department is nearly completed, and the lectures will in future be held there. This building cost $40,000—the princely gift of Mr. Sheffield, of New Haven. Prof. Porter states that a fund of $25,000 may be relied upon as working capital. On the last day of the course $7,500 was subscribed to this fund. An agricultural museum and library will be provided. The new laboratory of Prof. S. W. JOHNSON, who is unquestionably the ablest agricultural chemist in the United States, is in this new building, and is one of the best we have ever seen. The Scientific Department of Yale is an honor to the college and the country.

Owing to the unusual press of matter in our columns this month, we are unable to give sketches of these lectures, but shall do so at a future time.

THE PEACH BUDS.—There are many conflicting statements in regard to the peach buds in this section. A farmer who has a fifteen acre peach orchard near the Lake, informs us that three-fourths of the buds are uninjured, and the promise is good for a full average crop. On the other hand, a gentleman from Avon, who resides about 20 miles from the Lake, informs us that the buds are nearly all killed in his neighborhood.

THE CHEAPEST HORTICULTURAL WORK IN THE WORLD.—The five volumes of the *Rural Annual and Horticultural Directory*, viz.: for the years 1856–7–8–9 and '60, will be sent to any address, prepaid by mail, for one dollar! Any of our readers who have the volume for 1860 can have the four volumes to complete their set for 80 cents. Any single volume will be sent for 25 cents.

APRIL PREMIUMS.—The time for competing for our April Premiums (amounting to $235) expires on the 15th of April. Every one of our agents should send in the names they have by that time, as they may thus secure a Prize. Will not our friends make one more effort to increase our circulation? It is not yet too late; but what is done must be done at once.

WE are indebted to Messrs. ALLEN & MCELWAIN, of Springfield, Mass., for a choice collection of their flower seeds. Also to J. W. PUFFER for some seeds of the Canadian Mammoth Pumpkin, which, he says, is the largest he ever saw or heard of till he received the January number of the *Genesee Farmer!* Some of the pumpkins weigh 200 lbs.

THE LAST CALL.—The time for competing for the April Premiums expires on the fifteenth of this month. All our friends who are competing for these premiums should send in the names by that date—and all who are not competing should do the same, for many will take a prize who do not expect it. Let us hear from all our friends at once.

BOUND VOLUMES OF THE GENESEE FARMER.—In reply to several inquiries we would say that we cannot furnish a complete set of the back volumes of the *Genesee Farmer*. We have a few volumes of 1847–48 and 1856–57–58 and 59, bound in paper, that we will sell for 75 cents each. We have also a few volumes of 1847, 1852, 1853, 1855, '56, '57, '58 and '59, handsomely bound in boards, that we will sell at one dollar each. They will be sent prepaid by mail to any address, on the receipt of price. Those who wish them should avail themselves of this opportunity at once.

Inquiries and Answers.

PLASTER FOR GRASSES—JOINT WORM IN BARLEY—STABLES FOR COWS, ETC.—I would like to make several inquiries, as follows: Is gypsum beneficial to either Timothy or June grass meadows? Does it enter into the composition of these grasses? If not, how is it beneficial, if at all? Analysis shows gypsum as an element of clover; but as far as my observation goes, I have failed to notice any benefit when sown on either Timothy or June grass.

2d. Will some one give some information relative to what is here termed the "joint worm," in barley? Is there a benefit by either early or late sowing in preventing its ravages? I am confident my last sown barley was injured most—which was sown on the 12th of May last, on rather mellow soil. I understand the worm is hardly known in some sections, while hereabouts it is very injurious.

3. I shall feel much obliged if some practical man will give a good plan for a stable for forty cows, with a manure cellar beneath, so that I may save the solid and liquid manure without the unavoidable waste by throwing it out of doors. Is it the better method to have a cistern for the liquid, or mix absorbents, such as muck, straw, leaves from the forest, etc., with the manure? It is recommended to expose composts in the open air, with many turnings, several months before applying; would it not be well to throw up the muck in the dry season, and after drying awhile, haul to the manure cellar for mixing with the manure during the winter, and applying the whole in a green state next spring—taking labor and all into account? Is not the practice recommended of exposing some time to the elements the compost heap, tending to enrich the atmosphere and impoverish the soil, in a measure, by the escape of gasses evolved by decomposition?—INQUIRER, *Sanford's Corners, N. Y.*

Gypsum or plaster is composed of sulphuric acid and lime, and these enter into the composition of *all* plants grown for food. Why it is beneficial on clover and not on Timothy grass is perhaps owing to the fact that Timothy requires more ammonia than clover, and the latter being deficient, the plaster can do no good until the deficiency is supplied.

We should be glad if some of our experienced correspondents would give their views on these subjects.

ED.

LADY APPLE.—(E. N. L., *Granville, N. Y.*) Downing's Fruits and Fruit Trees of America has the following description of the Lady Apple:

An exquisite litte dessert fruit, the pretty size and beautiful color of which, render it a universal favorite; as it is a great bearer, it is also a profitable sort for the orchardist, bringing the highest price of any fancy apple in market.

Fruit quite small, but regularly formed and flat. Skin smooth and glossy, with a brilliant deep red cheek, contrasting with a lively lemon yellow ground. Stalk of medium length, and deeply inserted. Calyx small, sunk in a basin with small plaits. Flesh white, crisp, tender and juicy, with a pleasant flavor. The tree has straight, almost black shoots, with small leaves; forms a very upright, small head, and bears its fruit in bunches. The latter is very hardy, and may be left on the tree till severe frosts. The Lady Apple is in use from December to May.

CULTIVATION OF REEDS.—I have a piece of wet, mucky ground on my farm that I am at a loss what to do with, and should be glad if you could suggest any profitable use for it. I know you will tell me to drain it. But this is impracticable. Can nothing be done with it without draining?—G. R. T., *Erie Co., N. Y.*

If it is too wet for basket willows, the only profitable use that can be made of it is to plant it with the common Reed (*arundo phragmites.*) It grows where no other useful plant will, and requires no care or cultivation Reeds flourish best in situations where they can have water flowing over their roots, and can either be transplanted from where they are growing wild, or can be raised by sowing the seed in the mud. Once they have possession of the soil they will increase by their stolons or runners and flourish to the exclusion of everything else.

According to Flint this grass affords a large amount of nutritive herbage while in a green succulent state. In Great Britain reeds are much used for the purpose of thatching cottages, outbuildings, stacks, &c.; and are often used for covering summer houses, from the neat appearance given to them; and such roofs are said to last fifty or sixty years. They make the best of covering for dairy houses. Sometimes light screens are made from them as a protection to wall fruit in winter, and they also form good coverings for protecting glass. They answer well for forming cones round tender shrubs or beehives, and could perhaps be made use of for packing fruit trees in for transportation When cut for these purposes the stems should be full grown, ripe and still full of sap, as if allowed to die or become frozen, they are brittle and useless. The product of an acre is estimated in England as worth annually about twenty-five dollars, with no expense for cultivation.

HOW TO MAKE GRAFTING WAX, AND TO CUT AND PRESERVE SCIONS.—(J. R., *Crawford Co., Pa.*)—An excellent Grafting Wax for out-door grafting may be made by melting together one part of beeswax, three parts of rosin and two parts of tallow. While yet warm, the mixture may be worked up by hand.

For Root Grafting—Beeswax one part, rosin 4 parts, tallow one part.

The French make a very good material to wrap around fresh grafts, by melting equal parts of beeswax, turpentine and rosin, and spreading it while warm on strips of coarse cotton or strong paper. Scions are usually cut in winter or early spring, from the shoots of new wood formed the previous year. They should be straight and thrifty, and can be preserved by burying them in a box of sand in the cellar. When wanted for use, they may be cut again into pieces containing three or four buds each.

MANURE FOR SPRING WHEAT.—Will any of your experienced correspondents inform me through the medium of the *Farmer*, whether fresh barnyard manure, spread and ploughed under in the spring, will be suitable for spring wheat? The land was last year in corn, but is rather poor. —JAS. HOWIE, *Dexter. C. W.*

Fresh barn yard manure is not perhaps generally advisable for spring wheat, but if no other can be had, and the land is poor, it will be better than none at all. We hope some of our correspondents will give their views on this subject.

CHESTER HOGS.—(J. S.)—H. Fenner, of South Orange, N. J., has some of these hogs for sale.

SOFT GRASS.—Can you inform me if what we call Soft Grass in the west of Scotland is the same as Meadow Foxtail, and if so, if it will stand our winters?—J. H. H., *Morriston, C. W.*

The Meadow Soft Grass, (*Holcus lanatus,*) is a different species from the Meadow Foxtail, (*Alopecurus pratensis.*) Both these grasses are found in the New England States, where they appear to stand the winter well, and would doubtless do the same in Canada. The Meadow Foxtail is however the most valuable of the two, and is considered worth cultivating in some localities as a pasture grass, when mixed with other grasses. The other is of little value.

COLORED PLATES.—(R. T. S.) D. M. DEWEY, of this city, is extensively engaged in the preparation of colored plates of fruits, flowers, trees, shrubs, &c., and you can get from him what you wish. He will send you a catalogue of the varieties, price, &c., on application. We are informed that he sold *fifteen thousand* of these plates last year to nurserymen, fruit tree dealers, &c. He has just shown us three handsome volumes of these plates prepared for a gentleman in Missouri.

FARMS FOR SALE IN WESTERN NEW YORK.—Do you know of a good farm, on Cayuga Lake or any of the lakes of Western New York, for sale at a fair price—from 150 to 300 acres?—LLOYD MINTURN, *Farrisburgh Center, Vt.*

Any of our readers wishing to sell their farms would do well to advertise in the *Genesee Farmer.*

GRAFTING SEEDLING APPLE STOCKS.—(W. C., *Croydon, C. W.*) It is perfectly safe for you to leave your Seedling Apple Stocks in the ground during winter, and pull and graft as you may desire in the spring, without, however, delaying their removal until the sap flows.

BREMEN GEESE.—(DOWNER TREMBLY, *Muskingum Co., Ohio.*)—We have made several inquiries for you, but have been unable to discover who have these geese for sale. If any of our readers have them, or know who has, we shall be much obliged for the information.

WIRE WORMS.—(C. INMAN, *Mich.*) The wire worm is the larva of a tribe of insects known as Click Beetles or "Snapping Bugs," a description and cut of which will be found on page 51 of the Rural Annual for 1860.

CUTTING BOX.—("YORK.")—The best we know of is the Rochester Premium Cutting Box, manufactured by A. Gordon & Co., of this city. The price varies from $12 to $25, according to size.

SEED DRILLS.—I bought last spring one of Kuhns & Haines' Seed Drills. It works well, but on ground plowed the fall previous it does not leave it sufficiently covered. Now which will be the best, (on our light prairie land,) to harrow it crosswise after the drill, or do nothing but roll it after?—EDWIN R. HEALY, *Muscatine Co., Iowa.*

WINTER OATS.—I would like to know if Winter Oats would be a profitable crop for this section of country? If so, could seed be obtained nearer than North Carolina?—GEO. WRIGHT, *Genesee Co., N. Y.*

DESTROYING WILD FLAX.—I would like to know of some method of destroying that annoying weed known as Wild Flax. It has overrun some ten acres of my land.—D. LANDIS, *Lancaster, Pa.*

FEEDING PEAS TO PIGS.—What is the best method of feeding peas to pigs in winter, whether boiled or not? Will some of your correspondents answer?—R. J. S., *Hillsbury, C. W.*

BLACK SPANISH FOWLS.—I would like to find out through your valuable paper where I may obtain a few Black Spanish Fowls at a reasonable price. I have seen them advertised in some of the papers, but at such extravagant prices that no man of sense would buy them.—J. G. F., *Luzerne Co., Pa.*

NEW OXFORDSHIRE SHEEP.—Can you or any of your readers inform me where I can obtain some sheep of this breed, and at what price?—F. M., *Kennebec Co., Me.*

Special Notices.

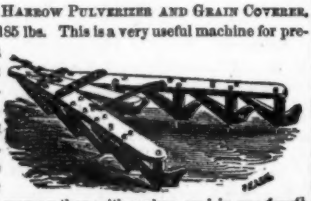
CAST STEEL BELLS, for churches, academies, &c., have been made in Germany and England, for several years, and tested with marked success in all climates. They are now having a large sale in the vicinity of Montreal, Canada, where they have been well tested in the severe winters of that section of country. Their makers claim for them greater purity and depth of tone than can be produced from other bells, while they cost from one-third to one half less.

Any further information may be had by addressing Mr. JAMES G. DUDLEY, 93 Main street, Buffalo, whose card may be found in its appropriate place.

YALE AGRICULTURAL LECTURES—sent by mail, prepaid, on receipt of 30 cents.

Send for our Catalogue of all kinds of Agricultural Books. (Sent free.) C. M. SAXTON, BAKER & Co., Agricultural Book Publishers and Proprietors of the *Horticulturist*, 25 Park Row, New York.

SHARES' COULTER HARROW PULVERIZER AND GRAIN COVERER. Price, $15; weight, 185 lbs. This is a very useful machine for preparing land for Root crops or Grain, when it needs *plowing several times*. It is necessary to *plow but once*, as all that remains can be done with this Harrow in a more workmanlike manner than with a plow, *and in one-fourth of the time with the same team*. Turf land for most kinds of crops can be plowed in the fall or any time at leisure, and when time to plant, harrow it over, and it will be in as good order as if it was plowed the day before. It will answer in corn stubble and sod turned over light land, in place of a *plow, large cultivator and harrow combined*. Farmers who have used these machines can make money by selling them. For particulars, apply to W. W. EGGLESTON, Albany, N. Y.



ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or $2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in *every State and Territory, and in all the British Provinces*. (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

We will also insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

FROM $75 TO $150 PER MONTH—Made by any active person with *improved* $10 Stencil Tools. Indelible Ink and all kinds of Stencil Stock cheaper than elsewhere. For samples and circular containing full particulars, send a stamp to
March, 1860.—2t D. L. MILLIKEN, Brandon, Vt.

FANCY POULTRY, RABBITS, ETC.—Spring Circular now ready—sent free—send for one. Eggs furnished fresh for setting. Address E. S. RALPH, Box 21,
April—2t Buffalo, N. Y.

CRANBERRY VINES.—Lowland Belle Vines, from one to four feet long. The fruit has taken the first premium at each State Fair where it was exhibited, viz: 1855, '57 and '59. Price $1 per 100, and $5 per 1,000. NOBLE HILL,
April—1t* Caton, Steuben County, N. Y.

500,000 WILSON'S ALBANY SEEDLING STRAWBERRY—$4 per 1,000; 50 cts. per 100. 10,000 Hooker Seedling Strawberry, $10 per 1,000; $1 50 per 100. 30,000 Lawton Blackberry, very fine, $30 per 1,000; $4 per 100; $3 for 50. For sale by C. L. TWING,
April—2t Lansingburgh, N. Y.

JAPAN APPLE PIE MELON.

PACKETS containing 40 seeds, with directions for use, will be sent to any address in the Union, upon receipt of 6 three cent postage stamps. Address ALLEN & McELWAIN,
April—1t Springfield, Mass.

GENUINE HUBBARD SQUASH SEED.

45 perfect seeds for 4 three cent postage stamps.
100 " " 8 " " " "
Sent post paid to any address in the Union.
ALLEN & McELWAIN,
April—1t Springfield, Massachusetts.

TRANT'S EVERGREEN PEA can be planted as early as the ground will admit of cultivation, and also very late, so that a family can have a supply all the season. They are productive, cook easy, and have been pronounced unequalled for their delicious flavor by all who have tried them. Very highly recommended. Price $1 per quart. For sale by WM. THORBURN,
April—1t 492 Broadway, Albany, N. Y.

WILSON'S ALBANY STRAWBERRY VINES—Warranted, 25 cents a dozen; $1 per 100; $5 per 1,000. Hooker. 25c. a doz.; $1 per 100. Asparagus plants, 1 year, $2 00 per 1,000; strong, 2 years old, $5 per 1,000. English Maple, (Sycamore,) 1 year, $4 per 1,000. New Rochelle Blackberry, $5 per 100. White Grape Currant, 1 year, strong, $6 per 100. Privet Cuttings, $1 per 1,000.
April—1t JOSEPH CALDWELL, Troy, N. Y.

THE HUBBARD SQUASH.

THE seed raised of this celebrated Squash, by the original introducer, at 12 cents for a package of 50 seeds—post paid. Dealers supplied with seed in bulk at the lowest rates.

The Hubbard Squash is the sweetest, dryest and richest flavored of all winter squashes, and brings double the prices of the Boston Marrow. JAMES J. H. GREGORY,
April—2t Marblehead, Mass

MARBLEHEAD DRUMHEAD CABBAGE.

THIS is the most popular Cabbage carried into the Boston markets. It is remarkable for its reliability for heading under good culture, 95 per cent. will set marketable heads. The heads are remarkably large and heavy, fine grained and rich flavored.

I hereby offer FIVE DOLLARS for ONE OUNCE of seed of any variety of Drumhead Cabbage that shall equal this in the above characteristics.

A package of seed, post paid, for 25 cents; one pound of seed, post paid, for $4.00. JAMES J. H. GREGORY,
April, 1860.—2t Marblehead, Mass.

NEW BOOK on GRAPE CULTURE

BY WILLIAM BRIGHT,

Logan Nursery, Philadelphia, Pa.

JUST PUBLISHED,

BRIGHT's SINGLE STEM, DWARF AND RENEWAL SYSTEM OF GRAPE CULTURE.

Adapted to the Vineyard, the Grapery, and the Fruiting of Vines in Pots, on Trellises, Arbors, &c.

IN this work full Directions are given for Cultivating and Fruiting Pot Vines; a new system of Pruning for the Vineyard; New method of making Vine Borders; New Management of Cold Grapery; New Views on Fertilizing the Grape.

This is not a compilation of old matter respecting the Vine, but a *purely original work*, full of new suggestions for planting, pruning, traing and fruiting the Grape, under all kinds of culture; drawn from personal experience, and recently confirmed by the opinions of the best Grape-growers in England.

Price of the work, *Fifty Cents* per single copy. Sent by mail to all parts of the United States and Canada, post paid, on receipt of the price. Postage stamps received in payment.

***A liberal Discount to the Trade.
Address WILLIAM BRIGHT,
April—2t 627 Market St., Philadelphia.

VALUABLE SEEDS!

AGRICULTURISTS AND FARMERS NOTICE !!

1st—THE MUSTANG GRAPE, of Texas. This Grape is a native of Texas, but will *grow finely anywhere*. It bears more fruit than any other vine, which makes the *finest article of Wine*. For preserving, &c., it is unsurpassed.

To those who wish to cultivate, or try it, we will send a large package of the seed for One Dollar, or, if preferred, a packet of *Fifty Young Vines, with Roots*, fixed so as not to *injure* or *wither*, for Two Dollars, by mail, to any address.

HUBERT & CO.,
Little Wichita, Clay Co., Texas.

2d—THE "TURKISH FLINT WHEAT." This celebrated Wheat produces *three times* as much as any other Wheat ever sown. The flour is of the finest and sweetest quality—as white as the driven snow.

Enough seed to produce, at the *first* planting, from 10 to 12 bushels, will be sent in a strong linen sack, by mail, for One Dollar. Address,

"HUBERT & CO.,
Little Wichitia, Clay Co., Texas."

3d—THE "PINE-APPLE PUMPKIN." Every housekeeper should have this delicious vegetable. It is better than any "dried peaches," apples, or anything of the kind, for making pies, puddings, custards, etc., or to eat alone.

A large package of seed sent by mail for One Dollar.

Direct to

"HUBIET & CO.,
April—4t Little Wichita, Clay Co., Texas."

Honolulu Nectarine Squash.

UNIVERSALLY pronounced *a marvel;* Named and introduced by the "Rural Empire Club" in 1858. Samples of the Sowed and Dried Squash passed around by mail, called forth the following expressions, which we have selected from hundreds on account of their brevity:

From B. P. Johnson, Sec. N. Y. S. Ag. Soc.—"Never have tasted anything in the Squash line that compares with this."

From H. Meiggs, Sec. Far.'s Club, N. Y.—"Without poetry, your squash is nectareous."

From D. Redmond, Ed. Southern Cult., Ga.—"The squash is a marvel—real confectionary."

From C. M. Saxton, Pub. Horticulturist, N. Y.—"The *women folks* pronounced it splendid! Pray tell me more about this squash."

From the Co. Gent., Albany, N. Y.—"Its texture is so fine that it all melts away in the mouth."

From the Rural New Yorker, Rochester, N. Y.—"Is certainly a vast improvement in flavor and sweetness from anything in the way of unadulterated squash that we ever before tasted."

From the Lowell Courier, Mass.—"Without exception the finest squash we ever tasted, and is greatly superior even to the Hubbard."

A small specimen of this *Dried Nectar* will be forwarded to all applicants who wish to know more of this Vine-fruit. And seeds in any quantity for $1 per doz. to any address in the U. S. or Can. adas, post paid, by mail.

Address

I. W. BRIGGS,
April—1t West Macedon, Wayne Co., N. Y.

FLOWER SEEDS BY MAIL.

ALLEN & McELWAIN,

Seedsmen and Florists, Springfield, Massachusetts.

WE invite the attention of all Cultivators of Flowers, to the following collection of choice and rare Seeds, comprising the most beautiful and showy Annuals, Biennials and Perennials, and embracing the finest PEONY FLOWERED ASTERS, CAMELLIA FLOWERED BALSAMS, GERMAN STOCKS, ENGLISH PANSIES, CARNATION and PICOTEE PINKS, DOUBLE HOLLYHOCKS, CALCEOLARIAS, CINERARIAS, &c., which will be forwarded to any address in the Union, upon receipt of the price, viz:

No.	COLLECTIONS.	PRICE.
1	Contains Twenty varieties of Annuals,	$1 00
2	Twenty varieties of Biennials and Perennials,	1 00
3	Ten extra fine varieties of rare Annuals and Perennials,	1 00
4	Five choice varieties, from PRIZE FLOWERS, of French Asters, German Carnation and Picotee Pinks, English Pansies, Verbenas and Hollyhocks, each of which is sold at 25 cents, singly,	1 00
5	Fifty varieties (including Collection No. 4,) Annuals, Biennials and Perennials,	2 50
6	One Hundred varieties,	5 00

We also offer many other collections, by mail, for list of which see Catalogue, which will be forwarded to any address upon receipt of a three cent stamp.

Address

ALLEN & McELWAIN,
April—1t Springfield Mass.

SEED POTATOES.

PRINCE ALBERTS and Peach Blows, each $2 per bbl; Buckeyes, $1,50, delivered on the cars.

April—1t* ALFRED VAIL, Waterloo, N. Y.

Kedzie's Rain and River Water Filter

IS no longer an experiment. It possesses every *practical* and *scientific* arrangement for rendering the most impure Rain and River Water free from all decomposed organic matters and gases, taste, color and smell.

They are PORTABLE, DURABLE, CONVENIENT and CHEAP; can be transported any distance in safety, and are sure to give satisfaction.

Manufactured by

JAMES TERRY & CO.,
Rochester, N. Y.

☞ Descriptive circulars sent free. April, 1860.—3t

The Rural Empire Club

OFFERS the following list of rarities by mail:

Honolulu, Nectarine, Pine Apple, Snowball, Hubbard and Mammoth Squashes; Ne Plus Ultra, Lord Kenyon's Favorite, Man of Kent, and Prolific Pickle Cucumbers; Apple Pie Melon, and *Variety Package* of Melons, embracing 12 best varieties mixed; Gherkin and Pomegranate, or Egg Melon; Early Paris Cauliflower and Premium Flat Dutch Cabbage; Feejee Island and Large Purple Tomato; Long 8-rowed White Pop, Washington Dutton, Wyandot Prolific and Excelsior Sweet Corn; Jones & Son's renowned Green Centred Helianthus and choice mixed German and French Asters; Sweet Winter Turnips; Buena Vista Beans; Poland Oats; Broad Leaf Tobacco; Beardless Barley; Hungarian Grass Seed and Chinese Sugar Cane Seed.

Single packages for 25 cents each. Selections of six varieties for $1.00. Twenty varieties for $2.00. Address

I. W. BRIGGS, West Macedon,
April—1t Wayne county, N. Y.

SPRING GARDEN SEEDS.—The most complete assortment ever offered to the public. Also,

KENTUCKY BLUE GRASS,
ORCHARD GRASS,
TIMOTHY,
RED TOP,
RHODE ISLAND BENT GRASS,
ENGLISH & ITALIAN RYE GRASS,
WHITE & RED CLOVER,
LUCERNE,
SEED POTATOES,

a choice assortment.

For descriptions and prices send for our Catalogues.

J. M. THORBURN & CO.,
15 John street, New York.

FLOWER SEEDS BY MAIL.

OUR OWN SELECTION OF

25 varieties for	$1 00
50 varieties for	2 00
100 varieties for	4 00

☞ Persons ordering either of the above assortments may rely upon a beautiful collection.

J. M. THORBURN & CO.,
April—1t 15 John Street, New York.

Wilson's Albany Seedling Strawberry.

FIFTY THOUSAND for sale at Five Dollars per thousand, or Three Dollars for five hundred, packed in moss and delivered at Express or R. R. Freight office. W. H. HAYES,

April—1t Bridgewater, Oneida Co., N. Y.

CHOICE TOBACCO SEEDS.

1-2 oz. genuine Conn. Seed Leaf for 25 cts.
¼ oz. celebrated Sperry " 25 "
Post paid.

ALLEN & McELWAIN,
April—1t Springfield, Mass.

CHINESE SUGAR CANE.—First quality of seed grown in Ga., 10 lbs. for $1, or $2 50 per bushel. Samples sent to all parties enclosing the postage. Poland Oats and Mexican Potatoes at one dollar per bushel.

Address

I. W. BRIGGS,
April—1t W. Macedon, Wayne Co., N. Y.

PEAVINE CLOVER.—[See Country Gentleman for Jan. 5, 1860, page 17]. The genuine article just received. At 12½ cents per pound. For sale by

WILLIAM THORBURN,
April—1t 492 Broadway, Albany, N. Y.

CHUFAS, OR EARTH ALMONDS, at 10 cents per ounce by mail, 10 cents. For sale by

WM. THORBURN,
ap1t 492 Broadway, Albany, N. Y.

PRINCE ALBERT and Davis' Seedling Potatoes, at $1 per bushel (no charge for sacks); 10 bushels to one address for $7 50, sent as directed, on receipt of cash, with directions for shipping. Please to send your orders to

April—1t JONATHAN TALCOTT, Rome, N. Y.

WHEELER, MELICK & CO.,

PROPRIETORS

N. Y. STATE AGRICULTURAL WORKS.

[Double Power and Combined Thresher and Winnower at Work.]

MANUFACTURERS of Endless Chain Railway Horse Powers and Farmers' and Planters' Machinery for Horse Power use, and owners of the Patents on, and principal makers of the following valuable Machines:

WHEELER'S PATENT DOUBLE HORSE POWER,

AND

Improved Combined Thresher and Winnower.

[SHOWN IN THE CUT]

Wheeler's Improved Patent Combined Thresher and Winnower is a model of simplicity and compactness, and is made in the most substantial manner, so that its durability equals its efficiency and perfection of work. Its capacity, under ordinary circumstances, has been from 125 to 175 bushels of Wheat, and from 200 to 300 bushels of Oats per day. It works all other kinds of grain equally well, and also threshes and cleans Rice, Clover and Timothy Seed. Price, $245.

WHEELER'S PATENT SINGLE HORSE POWER,

AND

Overshot Thresher with Vibrating Separator,

Threshes from 75 to 100 bushels of Wheat, or twice as many Oats per day, without changing horses—by a change, nearly double the quantity may be threshed. Price, $128.

WHEELER'S PATENT DOUBLE HORSE POWER,

AND

Overshot Thresher with Vibrating Separator,

Does double the work of the Single Machine, and is adapted to the wants of large and medium grain growers, and persons who make a business of threshing. Price, $160.

WHEELER'S NEW FOUR HORSE, OR SIX MULE HORSE POWER,

Is a recent invention, designed to meet the wants of Southern and Western customers. We believe it is the simplest and most perfect Lever Power made. Price, $100.

Also, Circular and Cross-Cut Sawing Machines, Clover Hullers, Feed Cutters, Horse Rakes, and other Farming Machines.

☞ To persons wishing more information and applying by mail, we will forward a Circular containing such details as purchasers mostly want—and can refer to gentlemen having our Machines in every State and Territory.

Our firm having been engaged in manufacturing this class of Agricultural Machinery 25 years, and have had longer, larger and more extended and successful experience than any other house.

All our Machines are warranted to give entire satisfaction, or may be returned at the expiration of a reasonable time for trial.

☞ Orders accompanied with satisfactory references, will be filled with promptness and fidelity; and Machines securely packed will be forwarded according to instructions, or by cheapest and best routes.

WHEELER, MELICK & CO.,

April—1t. ALBANY, N. Y.

ROCHESTER CENTRAL NURSERIES.

SEND FOR A CATALOGUE.

IF YOU WANT FRUIT TREES,
Send for a Catalogue and make a selection.

IF YOU WANT GRAPE VINES,
Send for a Catalogue and make a selection.

IF YOU WANT STRAWBERRY PLANTS,
Send for a Catalogue and make a selection.

IF YOU WANT BLACKBERRY PLANTS,
Send for a Catalogue and make a selection.

If you want CURRANTS, GOOSEBERRIES, Raspberries, &c.
Send for a Catalogue and make a selection.

IF YOU WANT SHADE TREES,
Send for a Catalogue and make a selection.

IF YOU WANT SHRUBBERY,
Send for a Catalogue and make a selection.

IF YOU WANT EVERGREENS,
Send for a Catalogue and make a selection.

IF YOU WANT ROSES.
Send for a Catalogue and make a selection.

IF YOU WANT GREEN HOUSE PLANTS,
Send for a Catalogue and make a selection.

IF YOU WANT BEDDING PLANTS,
Send for a Catalogue and make a selection.

If you want any kind of FRUIT or ORNAMENTAL TREES or SHRUBS, send for a Catalogue to C. W. SEELYE,

April—1t Rochester Central Nurseries, Rochester, N. Y.

NANSEMOND SWEET POTATOE PLANTS.

For Northern planting. A superior article.

Packed to go Safely Long Distances.

Prices—400 for $1, 1,000 for $2, 5,000 for $9, 10,000 for $15, during May and June.

Send stamp for circular of directions in culture, and experience of growers at the North.

C. B. MURRAY,
(Late O. S. Murray & Son.)

April—2t Foster's Crossings, Ohio.

TREE AND SHRUB SEEDS.

Norway Spruce,	per lb. 75
European Silver Fir,	" 1 00
Balsam Fir,	" 1 00
Hemlock Spruce (clean seed),	" 1 00
American Arbor Vitæ (clean seed),	" 1 00
Chinese,	" 1 00
Stone Pine,	" 1 50
Black Austrian Pine	" 1 00
Scotch Fir,	" 1 50
Scotch Larch,	" 1 00
American Bald Cypress (beautiful),	per qt. 25
Strawberry Tree (Arbutus unedo),	per ox. 40
Hop Tree,	" 25
Buckthorn,	per lb. 1 00

Tree seed catalogues on application to

J. M. THORBURN & CO.,
April—1t 15 John street, New York.

BEAUTIFUL FRENCH HYBRID GLADIOLUS.

WE have just received fifty named varieties of the above species.

Price from 15 cents to $1.50 each.

Also, all other varieties of

GLADIOLUS,
JACOBEAN LILIES,
TUBEROSES,
TIGER FLOWERS, &c., &c. &c.

for which see our Flower Seed Catalogue.

J. M. THORBURN & CO.
15 John street, New York.

1,000 HARDY PLUM TREES, 1 and 2 years, extra.
2,000 PEAR TREES, approved sorts, 2 years.
2,000 CONCORD and CLINTON Grape Vines, 1 year.
10,000 WILSON'S ALBANY STRAWBERRY PLANTS, grown with care.

For terms address "Oneida Community, Oneida, N. Y."
April—1t

MYATT'S VICTORIA RHUBARB—For sale at $5.00 per 100. Warranted, by D. C. ANDREWS,
April—1t* Woodbury, Gloucester Co., N. J.

Howe's Improved Hay or Cattle Scale.

THE BEST IN USE!

First Premium over Fairbanks at Vermont State Fair '57 and '58. First Premium and no Competition in '59. First Premium at 13 Different State Fairs. Silver and Bronze Medals at American Institute Fair, N. Y., 1859.

HOWE'S SCALES FOR ALL USES, have Great Simplicity and Wonderful Accuracy,

REQUIRE NO PIT—May be set on the top of the ground, or on a barn floor, and easily removed.

NO CHECK RODS—NO FRICTION ON KNIFE EDGES—All friction received on Balls. Weigh truly if not level.

Delivered at any Railroad Station in the United States or Canada, set up, and warranted to give *entire satisfaction*, or taken back.

☞ Send for circulars and price lists, with account of trial of Scales between Howe and Fairbanks, at Vermont State Fairs, to

JAMES G. DUDLEY, General Western Agent,
April, 1860. 93 Main street, Buffalo, N. Y.

CAST STEEL BELLS,

FOR

CHURCHES, ACADEMIES, FIRE-ALARMS, FACTORIES.

FROM SHEFFIELD, England, have been tested in all climates, Europe and America. Weigh less, cost less per pound, have better tones, can be heard farther than other bells. They cost 50 per cent. less than

THE BEST COMPOSITION BELLS.

which are also sold by me at Makers' Prices.

Broken Bells Taken in Exchange,

or re-cast on short notice. Such bells will nearly pay for Steel Bells of the same size.

☞ Send for a circular. Bells delivered in all parts of the United States or Canada, by JAMES G. DUDLEY,
April, 1860. 93 Main street, Buffalo, N. Y.

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FIRE AND BURGLAR-PROOF SAFES,

With Hall's Patent Powder-Proof Locks,

HAVE NEVER FAILED

IN MORE THAN 300 DISASTROUS FIRES.

The Safest and Best Safe in Use.

DELIVERED at any Railroad Station in the United States, or Canada, at the very lowest rates, by

JAMES G. DUDLEY, Sole Agent,
April, 1860. at 93 Main street, Buffalo, N. Y.

$30 A WEEK.—**FEMALE AGENTS WANTED** at home, or to travel, on Salary or Commission, for

"THE WOMAN'S FRIEND."

a Periodical of pure and practical morality, exclusively for the Female sex, at only 60 cents a year; also for the

"MAMMOTH FAMILY PICTORIAL,"

the largest illustrated Family paper in the world, at only $1 a year. For "Confidential Terms" to Female Agents, specimen copies, etc., enclose a three-cent stamp to MARIE LOUISE HANKINS & CO., 429 Broadway, New York. April—2t

TO HORSEMEN.

WELLING'S WORM DIURETIC AND CONDITION POWDERS, made after Veterinary Physicians' recipes, are very efficacious when given to Horses suffering from inflammation of the lungs, heaves, worms, surfeit, moulting, or when hide-bound. Testimonials from farmers, city-railroad men, and other owners of horses, with directions for use, may be had on application to SAMUEL G. WELLING, Apothecary, New Rochelle, Westchester county, N. Y. The trade supplied at $4 per dozen, large boxes of one dozen doses each. Retail price, 50 cents per box. April, 1860.—3t*

GODFREY ZIMMERMAN, PINE HILL NURSERY—Near Buffalo, N. Y., offers for sale the following trees:

Standard and Dwarf Apples and Pears, Cherries, Peaches, Plums (mostly the German Prune, the freest from black-knot), and Orange or Apple-Quince.

Currants, best varieties; Raspberries and Gooseberries.

Of Grapes, besides the old varieties: Delaware, Diana, Concord, Rebecca, Hartford Prolific, and To-Kalon.

Also, Downing's Everbearing Mulberry, Norway Spruce, Black Spruce, Hemlock Spruce, Red Cedar and Arbor Vitæ.

☞ Price Catalogues sent on application. April—1t

EXTRA DANIEL O'ROURKE PEAS—These celebrated Early Peas (to which the particular attention of Market Gardeners is called) for earliness, productiveness and length of pod, cannot be surpassed. Price $6 per bushel—25 cents per quart. For sale by WM. THORBURN,
April—1t 492 Broadway, Albany, N. Y.

WHO CAN EQUAL IT?

A GENTLEMAN residing in Jefferson county, N. Y., having sold one of our Three Horse Endless Chain Powers and Combined Thresher and Winnower, wrote to us upon remitting pay for the same, that Mr. Sprague, the purchaser, had threshed 240 bushels of barley in three hours, and that he was doing more than the eight-horse machines.

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Our Endless Chain Powers for One, Two and Three Horses, Lever Powers, Combined Threshers and Winnowers, and Threshers with Vibrating Separators, have met with unequalled success wherever introduced.

We also manufacture a Clover Machine lately much improved, which can not be surpassed for durability or quality and quantity of its work.

☞ We warrant all our machines to suit purchasers.

For full particulars and Price List, send for our Descriptive Circular, which will be sent to all applicants.

Address G. WESTINGHOUSE & CO.
March, 1860.—3t Agricultural Works, Schenectady, N. Y.

Thorough-Bred North Devons

AT PUBLIC AUCTION.

THE subscriber intends holding his Second Public Sale of Devon Cattle on *Wednesday, the 6th day of June* next, when he will offer between 20 and 30 head, males and females, of his own breeding—all Herd-book animals and of superior excellence.

As at his previous sale, each lot will be started at a very low price, and *sold without reserve* to the highest bidder over that amount.

Catalogues containing pedigrees of the animals to be sold, and full particulars as to terms, &c., will be ready by the 15th of April, and will be sent, on application, to all desiring it.

C. S. WAINWRIGHT,
April—3t The Meadows, Rhinebeck, N. Y.

FLOWER SEEDS BY MAIL.

THE subscriber has for many years past spared no pains or expense in procuring, both in Europe and this country, every variety of *Annual Flower Seeds* that could be obtained, and after cultivating over one thousand varieties, has selected about one hundred kinds, with a view of including all the most desirable for hardy garden cultivation, a list of which will be sent to any one. And for $1, THIRTY-THREE KINDS of any on the list will be sent by mail, postage paid.

Garden, Vegetable and Flower Seeds of all kinds have been largely grown by the subscriber for more than thirty years past. He has now nearly one hundred acres devoted to this purpose, and can furnish Seeds of all descriptions, of the choicest kinds and purest quality, at the lowest prices and in any quantity desired. G. R. GARRETSON,
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FLOWER SEEDS—FLOWER SEEDS—FLOWER SEEDS

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A very choice selection of the leading varieties, neatly put up in Packages of 25 varieties, for.....$1.00
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Will be forwarded by mail free of postage.

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April—1t 492 Broadway, Albany, N. Y.

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N. B.—To those who take sufficient to plant six acres, as he directs, he will, when they commence bearing, furnish the owner with one of his Vinedressers, whom he has instructed in his mode of cultivation, and he will do all the labor of the Vineyard, and insure the most perfect success. The only charge, a reasonable compensation for the labor. When the purchase is large, and approved paper or other security can be offered, a liberal credit on most of the purchase will be given.

Also, APPLE-QUINCE TREES, (which are sometimes called the Orange Quince,) for sale as above.

Also, for sale at his PURE WINE AND GRAPE DEPOT, (No 7 Clinton Hall, Astor Place, N. Y. City), Isabella and Catawba Wine in their Purity.

All communications addressed to R. T. UNDERHILL, M. D., New York, or Croton Point, Westchester Co., N. Y., will receive attention. March, 1860.—2t

Rare and Beautiful Flowers.

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Collection of Flower Seeds by Mail, Postpaid.

The following collections have been sent out from his establishment for the past six years, and are now favorably known in every section of the country.

ASSORTMENT No. 1—Contains twenty choice varieties of Annuals —$1.00.

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March, 1860.—3t Springfield, Mass.

NO. 1 PERUVIAN GUANO—Government brand and weight on every bag:

SUPER-PHOSPHATE OF LIME,
BONE DUST, LAND PLASTER, &c.,

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1500 PICTORIAL ILLUSTRATIONS.

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HAS the pleasure of announcing to the patrons of this old establishment, and the public in general, that his stock of Fruit and Ornamental Trees, Plants, etc., for sale for the ensuing Spring trade, is full and complete, and comprises everything to be obtained in his line of business, viz:

A large stock of Apple, Pear, Cherry, Plum, Peach, Apricot, Nectarine and Quince Trees, one to three years from bud, of superior quality and growth.

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HEDGE PLANTS.—100,000 Osage Orange Plants of extra growth, one to three years old.

The above stock is all of the best quality and growth, and will be sold on the most reasonable terms.

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As accidents will happen, even in well-regulated families, it is very desirable to have some cheap and convenient way for repairing Furniture, Toys, Crockery, &c.

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"USEFUL IN EVERY HOUSE."

N. B.—A Brush accompanies each bottle. *Price,* 25 cents.

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Put up for Dealers in Cases containing four, eight, and twelve dozen—a beautiful Lithograph Show-Card accompanying each package.

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It is the Premium Mill for the People, and obtained

THE SILVER MEDAL AT THE LATE EXHIBITION

at the American Institute in the city of New York.

The People's Mill can be put into any Saw-mill.
The People's Mill is the cheapest Mill ever offered to the public.
The People's Mill is the simplest Mill ever made.
The People's Mill is the most durable in use.
The People's Mill has the most grinding surface of any portable mill.
The People's Mill requires less power than any other doing the same amount of work.
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The People's Mill is adapted to any kind of power.
The People's Mill is not a rotary mill.
The People's Mill obviates all the objections to the cast iron *rotary* mill.
The People's Mill will grind all kinds of grain, coarse or fine, for feed.
The People's Mill will grind plaster, bones, salt, all kinds of grain, malt, peas, beans, spices, etc., etc.
The People's Mill, largest size, requires about two horse power.
The People's Mill only requires about two hundred and fifty revolutions per minute.
The People's Mill, largest size, will grind from 150 to 200 bushels of grain in 24 hours.
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☞ I also manufacture the Improved Ketchum Grass and Grain Harvester. Feb'y—3t

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Dealer in Seeds and Implements, Albany, N. Y.

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SMITH & WINEGAR'S Patent Tile Machines—decidedly the best in use. Also,

TWO SIZES OF HAND MACHINES.

These machines make more and larger Tile than any other machine in use with the same amount of power. Price $300, $190 and $100. A. LA TOURETTE,
April—1t Waterloo, Seneca Co., N. Y.

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A MONTHLY JOURNAL OF

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THE

GENESEE FARMER

FOR 1860.

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3. To every person sending us TWENTY-FOUR subscribers, as above, we will send two extra copies of the *Farmer*, or two copies of the *Rural Annual* and one extra copy of the *Farmer*.

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2. TWENTY DOLLARS to the person who shall send us the second highest number, as above.
3. NINETEEN DOLLARS for the third list.
4. EIGHTEEN DOLLARS for the fourth.
5. SEVENTEEN DOLLARS for the fifth.
6. SIXTEEN DOLLARS for the sixth.
7. FIFTEEN DOLLARS for the seventh.
8. FOURTEEN DOLLARS for the eighth.
9. THIRTEEN DOLLARS for the ninth.
10. TWELVE DOLLARS for the tenth.
11. ELEVEN DOLLARS for the eleventh.
12. TEN DOLLARS for the twelfth.
13. NINE DOLLARS for the thirteenth.
14. EIGHT DOLLARS for the fourteenth.
15. SEVEN DOLLARS for the fifteenth.
16. SIX DOLLARS for the sixteenth.
17. FIVE DOLLARS for the seventeenth.
18. FOUR DOLLARS for the eighteenth.
19. THREE DOLLARS for the nineteenth.
20. TWO DOLLARS for the twentieth.
21. ONE DOLLAR for the twenty-first.

Our Agents, and Competitors for the above Premiums will remember that our terms are always IN ADVANCE.

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PUBLISHER AND PROPRIETOR,
February 1, 1860. ROCHESTER, N. Y.

STEREOTYPED BY JAMES LENNOX, ROCHESTER, N. Y.